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1919/20

The Bulletin of the University of Minnesota

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*The College of Education
Announcement for the Year
1919-1920*

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The Bulletin of the University of Minnesota is issued as often as twice a month during the University year.

The Bulletin comprises—

The reports of the President and of the Board of Regents, the Register, the Bulletin of General Information, the annual announcements of the individual colleges of the University, announcements of special courses of instruction, and reports of University officers.

These bulletins will be sent gratuitously to all persons who apply for them. The applicant should state specifically which bulletin or what information is desired. Address

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The University of Minnesota,
Minneapolis, Minnesota.

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THE
COLLEGE OF EDUCATION

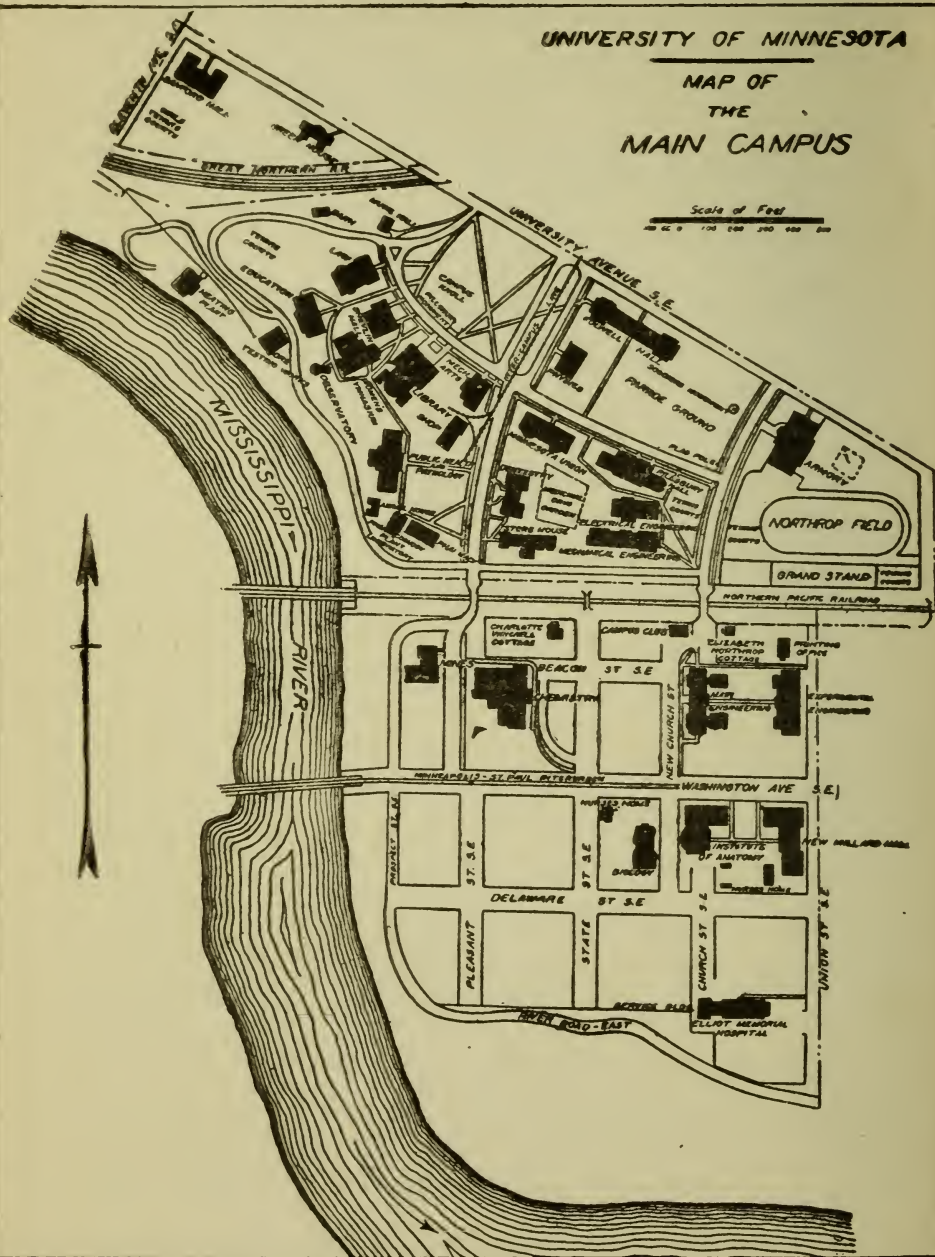
ANNOUNCEMENT OF COURSES
FOR THE YEAR

1919-1920

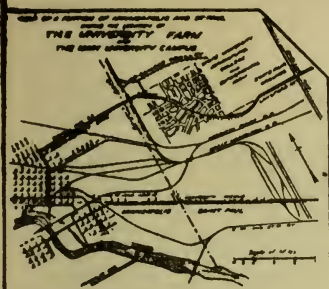
UNIVERSITY OF MINNESOTA

MAP OF THE MAIN CAMPUS

Scale of Feet
0 100 200 300 400 500



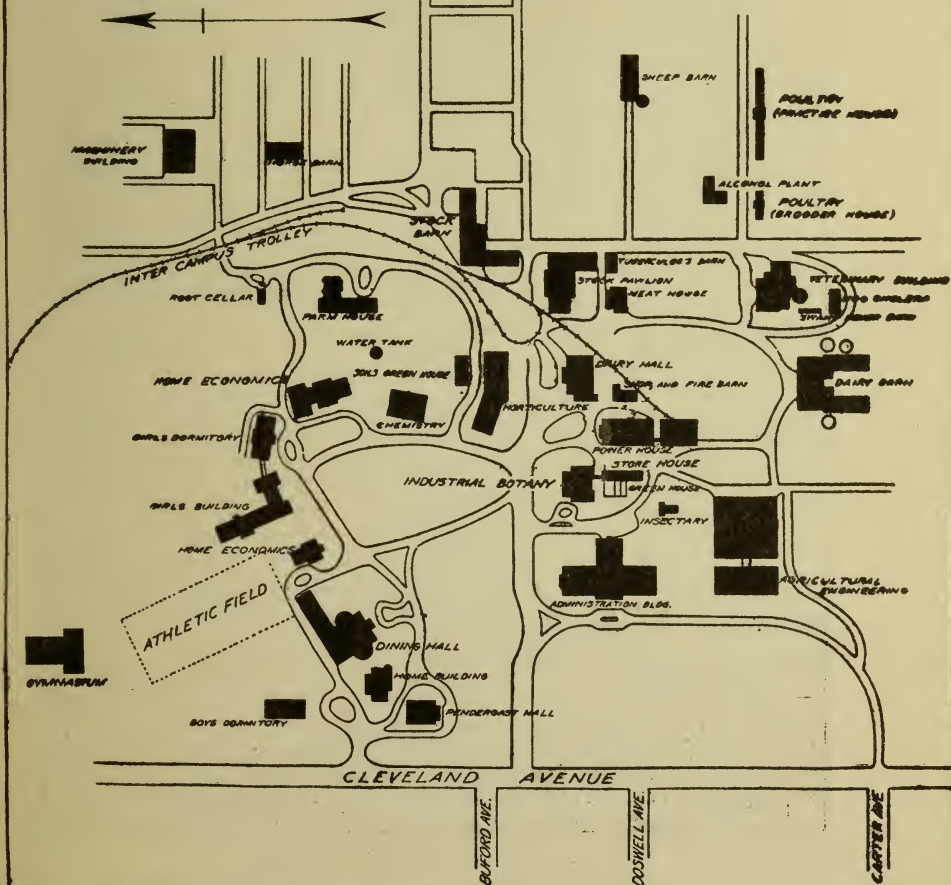
Area of Main Campus. 108.5 acres



UNIVERSITY OF MINNESOTA

MAP OF THE CAMPUS OF THE UNIVERSITY FARM

Scale of Feet
100 50 0 100 200 300 400 500



O. S. Zetter.

Area of University Farm, 422.56 acres

| 1919 | | | | | | | 1920 | | | | | | | | | | | | | |
|-----------|----|----|----|----|----|----|----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|
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| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
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| DECEMBER | | | | | | | JUNE | | | | | | | DECEMBER | | | | | | |
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CALENDAR

1919-1920

1919

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|-----------|-------|-----------|---|
| September | 20 | Saturday | Payment of fees closes, except for new students |
| September | 24-30 | Week | Examinations for removal of conditions, and entrance examinations Registration period, Colleges of Science, Literature, and the Arts, Education, and Agriculture, Forestry, and Home Economics |
| September | 29 | Monday | First semester evening extension classes begin |
| September | 29-30 | | Registration days for all colleges not indicated above |
| September | 30 | Tuesday | Payment of fees for new students closes |
| October | 1 | Wednesday | Fall quarter begins |
| October | 16 | Thursday | Senate meeting, 4:00 p.m. |
| November | 27 | Thursday | Thanksgiving Day; a holiday |
| December | 18 | Thursday | Senate meeting, 4:00 p.m. |
| December | 23 | Tuesday | Christmas vacation begins 9:00 p.m. |

1920

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|-----------|-------|-----------|---|
| January | 2 | Friday | Christmas vacation ends 8:30 a.m. |
| January | 2 | Friday | Winter quarter begins |
| January | 23 | Friday | First semester evening extension classes close |
| February | 2 | Monday | Second semester evening extension classes begin |
| February | 12 | Thursday | Lincoln's Birthday; a holiday |
| February | 19 | Thursday | Senate meeting, 4:00 p.m. |
| March | 25 | Thursday | Winter quarter ends |
| April | 1 | Thursday | Spring quarter begins |
| April | 2 | Friday | Good Friday; a holiday |
| May | 20 | Thursday | Senate meeting, 4:00 p.m. |
| May | 21 | Friday | Second semester evening extension classes close |
| June | 13 | Sunday | Baccalaureate service |
| June | 16 | Wednesday | Spring quarter closes |
| June | 17 | Thursday | Forty-eighth Annual Commencement |
| June | 18-19 | | Registration days for Summer quarter |
| June | 21 | Monday | Summer quarter begins |
| September | 3 | Friday | Summer quarter closes |

THE COLLEGE OF EDUCATION

FACULTY

- MARION LEROY BURTON, Ph.D., D.D., LL.D., President
CYRUS NORTHROP, LL.D., President Emeritus
LOTUS D. COFFMAN, Ph.D., Dean and Professor of Education
EDWARD E. NICHOLSON, M.A., Dean of Student Affairs
JOHN V. ANKENY, B.S., Assistant Professor of Agricultural Education
GISLE BOTHNE, M.A., Professor of Scandinavian Languages
CARLETON BROWN, Ph.D., Professor of English
CLARA BROWN, B.A. (in Education), Assistant Professor of Home Economics Education
WILLIAM H. BUSSEY, Ph.D., Associate Professor of Mathematics
LOUIS J. COOKE, M.D., Director of Physical Education for Men
HERMIONE L. DEALEY, Ph.D., Assistant Professor of Educational Psychology
GEORGE W. DOWRIE, Ph.D., Professor of Economics
WILLIAM P. DYER, B.A., Assistant Professor of Agricultural Education
HENRY A. ERIKSON, Ph.D., Professor of Physics
ALBERT M. FIELD, M.S., Assistant Professor of Agricultural Education
ROSS L. FINNEY, Ph.D., Assistant Professor of Educational Sociology
HARRIET GOLDSTEIN, Associate Professor of Home Economics Education
MELVIN E. HAGGERTY, Ph.D., Professor of Educational Psychology and Director of the Psycho-Educational Clinic
LEONARD V. KOOS, Ph.D., Professor of Secondary Education
AUGUST C. KREY, Ph.D., Associate Professor of History
WINFORD P. LARSON, M.D., Associate Professor of Bacteriology
GEORGINA LOMMEN, M.L., Assistant Professor of High-School Rural-Training Methods Courses
WILFORD S. MILLER, Ph.D., Associate Professor of Education and Principal of the University High School
MAUDE J. MILLER, B.S., in H.E., Assistant Professor of Home Economics Education
J. ANNA NORRIS, M.D., Director of Physical Training for Women
EVERETT W. OLMSTED, Ph.D., Professor of Romance Languages
ARTHUR F. PAYNE, M.A., Assistant Professor of Trade and Industrial Education
JOSEPH B. PIKE, M.A., Professor of Latin
CHESSLEY J. POSEY, M.S., Assistant Professor of Geography
ALBERT W. RANKIN, B.A., Professor of Education
RUTH RAYMOND, Assistant Professor of Art Education
CHARLES A. SAVAGE, Ph.D., Professor of Greek
RICHARD E. SCAMMON, Ph.D., Professor of Anatomy
CARL SCHLENKER, B.A., Professor of German
CARLYLE SCOTT, Professor of Music
RAYMOND W. SIES, Ph.D., Professor of Education
CHARLES P. SIGERFOOS, Ph.D., Professor of Zoology

ANDREW A. STOMBERG, M.S., Professor of Scandinavian Languages
 ASHLEY V. STORM, M.A., Professor of Agricultural Education
 FLETCHER H. SWIFT, Ph.D., Professor of Education
 JOSEPH M. THOMAS, Ph.D., Professor of Rhetoric
 ARTHUR J. TODD, Ph.D., Professor of Sociology
 MARVIN J. VAN WAGENEN, Ph.D., Assistant Professor of Educational Psychology

MILDRED WEIGLEY, B.A., Professor of Home Economics Education
 MARION WELLER, B.A., Associate Professor of Home Economics Education

NORMAN WILDE, Ph.D., Professor of Philosophy
 JEAN H. ALEXANDER, M.A., Instructor in Education
 MARIE B. DENEEN, B.A., Instructor in Teachers' Course in Latin
 SHERMAN DICKINSON, B.S., Instructor, Agriculture, Education
 JEAN DORSEY, B.S., in H.E., Instructor in Home Economics Education
 JOSEPHINE DE BOER, B.A., Instructor in Teachers' Course in Romance

Languages

ISAAC W. GEIGER, Ph.D., Instructor in Teachers' Course in Chemistry
 THADDEUS P. GIDDINGS, Instructor in Public School Music
 SOPHIA HUBMAN, M.A., Instructor in Teachers' Course in German
 REWEY BELLE INGLIS, B.A., Instructor in Teachers' Course in English
 ARTHUR M. JOHNSON, M.A., Instructor in Teachers' Course in Botany
 RUTH LINDQUIST, B.S., in H.E., Instructor in Home Economics Education

OLIVE MCCOMBER, B.S., Instructor in Home Economics Education
 JAMES F. MACKELL, B.A., Instructor in Teachers' Course in Physics
 FRANCES MOREHOUSE, M.A., Instructor in Education
 WILLIAM D. REEVE, B.S., Instructor in Teachers' Course in Mathematics
 HAZEL SMALL, Instructor in Art Education

UNIVERSITY HIGH SCHOOL

ADA M. BING, A.B., Assistant in English.
 JOSEPHINE DE BOER, B.A., Instructor in French
 MARIE B. DENEEN, B.A., Instructor in Latin
 ETHEL DUSTIN, Assistant in Art
 SYBIL FLEMING, M.A., Instructor in History
 SOPHIA HUBMAN, M.A., Instructor in German
 MAY HOLT, B.A., Assistant in Latin
 REWEY BELLE INGLIS, B.A., Instructor in English
 JAMES F. MACKELL, B.A., Instructor in Science
 FRANCES MOREHOUSE, M.A., Instructor in History
 SAMUEL R. POWERS, M.A., Instructor in Science
 WILLIAM D. REEVE, B.S., Instructor in Mathematics
 DORA V. SMITH, M.A., Instructor in English
 W. RAY SMITH, B.A., Instructor in Mathematics
 LYNNE E. STOCKWELL, Instructor in Manual Training

ASSISTANTS

R. O. BAGLY, B.A., Assistant in Agricultural Education
 HELEN MARR, Assistant in Art Education
 FLORENCE D. WILLETS, Assistant in Art Education

GENERAL INFORMATION

The College of Education was authorized by special enactment of the Legislature of Minnesota in 1905 and was established by the Regents of the University of Minnesota in the following year. It has the following purposes:

1. To offer opportunity for the study of education as an important enterprise of society and as of peculiar interest to all persons whether they are preparing for teaching or not.

2. To offer inexperienced university students who intend to become teachers the technical training for their vocation.

3. To offer to university students, or those actively engaged in service, opportunity for advanced professional study under direction.

4. To offer to university students, and to all teachers of suitable attainment, appropriate training designed to prepare them for successful careers as public administrators, normal school teachers or college teachers of education.

5. To offer opportunity for original investigation, research, and experiments in education and for the preparation of constructive contributions to educational theory and practice.

In fulfilling these purposes the College of Education offers the professional courses for the training of superintendents, principals, supervisors of special subjects, rural school supervisors, supervisors of playground and recreation activities, teachers of high-school subjects, manual training teachers, school librarians, teachers of high-school teacher-training departments, teachers of agriculture, home economics, and trades and industries.

UNIVERSITY HIGH SCHOOL

The University High School and the College of Education are located in the Education Building. The University High School is maintained, first, to conserve the interests of its student body, and, second, to provide superior opportunities for observation and directed teaching for prospective teachers. To fulfill the latter obligation, teachers of recognized skill and proficiency have been engaged as critic teachers. In coöperation with the high-school principal, these critics supervise all the practice of the student teachers. For further information consult the Bulletin of the University High School.

ADMISSION

Students looking forward to teaching should consult with the dean of the College of Education or the Chairman of the Program Committee early in their course.

Not infrequently seniors discover that a slight difference in arrangement of studies in their courses made during their freshman or sophomore years would have made them much more eligible for teaching position.

Students are held responsible for arranging their courses so as to meet all requirements. To do this intelligently they should secure from the Registrar's Office the following bulletins and pamphlets:

Bulletin of General Information

Bulletin and program of the College of Education

Bulletin of any other college in which subject matter courses are to be pursued

Bulletin and program of the College of Science, Literature, and the Arts

Information for New Students

Bulletin of the University High School

See also page 13 of this bulletin.

Regular Students

To be admitted to regular standing in the College of Education, students must be able to satisfy either of the following requirements, (a) or (b).

(a) Completion of at least the freshman and sophomore years of the College of Science, Literature, and the Arts, or of some other approved college at the University of Minnesota or elsewhere, during which time an introductory course in general psychology shall have been pursued. No formal application is necessary for transfer from the College of Science, Literature, and the Arts to the College of Education, nor is any loss of credits involved. However, no student may transfer who has not earned eighty-four credits and eighty-four honor points in the College of Science, Literature, and the Arts. Students able to meet the requirements set forth above simply make known their desire at the Registrar's office at the time of registration and they will thereupon be furnished with College of Education registration cards.

(b) Graduation from an approved normal school of Minnesota or of some other state. See below under Advanced Standing.

(c) In special subjects like Art Education where a three- or four-year curriculum is provided, students may register in the College of Education in their freshman or sophomore years.

Unclassed Students

Normal school graduates receiving sixty-three credits, teachers preparing for examination for the first grade professional certificates, but who are unable to meet the regular requirements for admission, teachers in service unable to carry full work, and certain other classes of students are admitted to the College of Education as unclassified students. Each case must, however, be dealt with individually as the result of formal application to the Dean.

Unclassed students in the College of Education will find it possible to pursue all subjects required for a first grade professional certificate.

Student Advisers

Only members of the Faculty of the College of Education may act as student advisers.

ADVANCED STANDING

By Examination

The tendency of the College of Education is distinctly toward discouraging any effort to secure advanced standing in professional subjects by examination. With the establishment of correspondence courses in the General Extension Division, there are no longer the reasons which formerly existed for granting such examination. (See also statement, Practice Teaching, page 19.)

Graduates of Minnesota Normal Schools

The College of Education grants to graduates of the advanced graduate course of Minnesota state normal schools ninety credits of advanced standing (approximately two years' credit); to graduates of the advanced Latin or advanced English course, sixty-three credits.

Graduates of the three-year course in the state normal schools of Minnesota may receive not more than one hundred and twelve and one-half credits in the College of Education at the University of Minnesota; credits earned in the three-year normal school course shall be applied in case they are deemed of equivalent merit, in the College of Education, to courses leading to certificates for supervisors in elementary grades, as principals in state graded schools, as teachers in junior high schools or in normal school departments in high schools; students coming from the three-year course in normal schools shall not receive certificates in high-school subjects from the University without completing the prescribed courses of the University of Minnesota for such certificates.

Normal school graduates desiring admission to the College of Education must present a recommendation from the president of the normal school from which they were graduated, together with a record of the courses pursued and grades received.

Students admitted to the College of Education from normal schools will not be permitted to elect the following courses for credit: Education 1; Psychology 1-2, or 5. Such students will be required to carry the advanced course in History of Education.

For a statement of records to be submitted, see Bulletin of General Information, pages 27-28.

CLASS ROUTINE AND SCHOLASTIC REQUIREMENTS

The following regulations refer chiefly to undergraduates; graduate students should consult the bulletin of the Graduate School.

Classes are held mornings and afternoons of every week-day except Saturday afternoon.

Students must elect at least fourteen hours a week. Students may ordinarily elect not more than seventeen credit hours. A student who has, during the preceding quarter or two quarters, earned an average of one and one-half honor points for each credit hour taken and who has had no condition or failure the preceding quarter, may elect eighteen hours, upon the approval by the Administrative Committee of a petition

for permission to do the same. For explanation of credit hours and honor points, see page 14.

Students whose absences exceed three weeks in the aggregate during a semester are not permitted to take the quarter examinations without permission of the Administrative Committee. Any student reported below grade in sixty per cent of his work, or in three subjects at the middle or close of the first semester or middle of the second quarter, is dropped from the rolls and not allowed to reënter the University until the opening of the following year.

Examinations are held at the close of each quarter. A student's grade is based upon his class work and examination. Four passing grades are given, namely, A, B, C, D. Work not done satisfactorily is marked I (incomplete), E (condition), or F (failure). An incomplete must be removed within one month after the opening of the following quarter; otherwise it becomes a condition.

A failure must be removed by pursuing the work again in class the next time the course is offered.

CERTIFICATES

Required in Minnesota

Every teacher in the Minnesota public schools must have a valid certificate before he can be lawfully employed. Two classes of certificates are of interest to university students:

1. A first grade professional certificate renders its holder eligible for the following positions: (1) superintendent of schools (if candidate has had previously two years' experience in supervising grades); (2) principal of a graded or high school; (3) instructor in any high-school subject, except those subjects which demand special certificates.

2. A special certificate authorizes the holder to teach the special subjects indicated on the certificate. The University prepares students for special certificates in: (1) art; (2) agriculture; (3) commercial subjects; (4) drawing; (5) home economics; (6) manual training; (7) physical education; (8) public school music; (9) trades and industries.

3. High school training. In addition to the courses preparing for special certificates, the College of Education offers courses to prepare teachers for high-school rural-training departments. The State Department issues no special certificates for this class of teachers, but gives an official endorsement to students who complete these courses in the College of Education. The College of Education grants persons completing this course a special diploma.

The University Teachers' Certificate

1. Two-year certificate. The University teachers' certificate is valid for two years as a first grade professional certificate. Holders are eligible for all positions open to holders of the first grade professional certificate named above. The courses leading to this certificate are described on page 18.

2. Life certificate. After two years of successful teaching experience, the University teachers' certificate may become a life certificate, upon endorsement by the State Department of Education and the President of the University. This two years' experience must be gained within Minnesota. Graduates who teach in another state may, upon returning to Minnesota, apply to the State Department of Education for an extension of their University teachers' certificate for two years at the completion of which application may be made for a permanent life certificate. The fee for this extension is \$1. Holders of the University teachers' certificate who wish to have their certificate made a permanent life certificate should apply directly to the State Department of Education, St. Paul, for a permanent endorsement of the certificate. The fee for this endorsement is \$5.

Regulations Governing the Issuance of Certificates

1. All inexperienced students desiring the University teachers' certificate (described on page 18) are required to comply with the University requirements for this certificate. This certificate shall specify the major and minor subjects the student is qualified to teach.

2. Mature and experienced undergraduates may petition the Administrative Committee to be excused from certain of the prescribed courses for the regular University teachers' certificate, their petitions must be approved by the Department of Education and the petition must in each case be accompanied by a statement showing that the student has been a successful teacher in certain high-school subjects. These students will be required to complete satisfactorily prior to graduation at least twenty-two hours of work in education. The education courses which they shall be privileged to carry will be determined upon the recommendation of the Dean of the College of Education.

3. Graduates of normal schools or of other institutions registered in the College of Education who do not desire to become high-school teachers, but who desire a more liberal training for elementary school work, may be relieved from complying with the regular requirements for a University teachers' certificate, but they will not be relieved from carrying at least twenty-two hours of work in Education. Such persons at graduation will be granted a special teachers' certificate describing their courses and indicating the types of positions for which they are qualified.

4. Students desiring to qualify as public school administrators will be granted a certificate upon completion of a course leading to such a certificate, but no student shall be eligible to such a certificate unless he has completed at least thirty-six hours of work in education, at least twenty-four of which must have been taken at the University of Minnesota.

5. Teachers and supervisors of public school music, of physical education, of manual training, of home economics, of agriculture, of trades and industries, and of such special subjects as may later be included in the program of the College of Education will be granted a

special teacher's or supervisor's certificate upon completing a prescribed course leading to such a certificate.

6. Students desiring to qualify as heads of teacher-training departments in high schools will be granted a certificate upon the completion of a course leading to such a certificate.

7. Students desiring to qualify as teachers of defective or super-normal children will be granted a certificate upon completion of a course leading to such a certificate.

8. Students regularly enrolled for graduate work with education as a major will, upon the completion of the requirements for an advanced degree, be recommended for a University teachers' certificate.

9. Students regularly enrolled for graduate work with education as a minor, who desire a University teachers' certificate, will be required to complete the course prescribed for such a certificate, unless they have already met the requirements or their equivalent for the certificate in their undergraduate careers.

THE DEGREE OF BACHELOR OF ARTS (IN EDUCATION)

The degree of Bachelor of Arts (in Education) will be conferred by the College of Education upon any student who fulfills all the requirements stated below during the year 1919-20, but beginning with the year 1920-21 students graduating from the College of Education will receive the degree of Bachelor of Science (in Education).

Summary of Requirements

1. Amount and grade of work. During his entire course the student must earn: (a) one hundred and eighty credit hours in addition to the required exercises in drill, gymnasium, and physical education; (b) one hundred and eighty honor points; (c) one and one-half honor points per credit hour in his major subject.

2. Courses required and allowed: (a) The student must have completed (normally during the sophomore year) a general introductory course in Psychology; (b) he must have satisfied all the requirements for a teachers' certificate (see page 18) except as hereinafter provided:

(1) Students *already holding a first grade professional certificate will be excused from complying with the University requirements for the certificate*, but they will be required to carry an equivalent number of courses in Education.

3. Residence. At least forty-five quarter credits must be earned by residence in this College. If the term of residence is only one year, that year must be the senior year; and in any case, at least half of the work of the senior year must be done in residence. Attendance at summer sessions counts as residence.

Explanation of Requirements

The amount of work pursued by a student is estimated in credit hours; the quality or grade of his work, in honor points.

A *credit hour* is one hour per week of recitation or lecture work extending throughout one quarter, or three hours per week of laboratory work through one quarter. It is assumed that each credit hour will demand on the average three hours a week of the student's time for recitation or lecture, one hour in class and two hours of preparation; for laboratory courses, three hours in the laboratory.

Honor points are computed as follows: each credit hour with the grade of A entitles the recipient to three honor points; each credit hour with the grade of B entitles the recipient to two honor points; each credit hour with the grade of C to one honor point; each credit hour with the grade of D to no honor points. Illustration: A student completing a one-quarter three-credit course and receiving the grade A would be entitled to nine honor points; if receiving the grade of B to six honor points; if receiving the grade of C to three honor points; if receiving the grade D to no honor points.

Students wishing to fit themselves for elementary school work may be graduated from the College of Education without completing the requirements for a teachers' certificate in a secondary subject. In every case, however, the student must petition for this privilege. In each instance the student will be expected to earn from twenty-four to thirty credits in a major field and eighteen in each of the two minor fields.

GRADUATION WITH DISTINCTION

The degree of Bachelor of Arts in Education with Distinction is granted to graduates of this College who fulfill the following conditions:

1. Special excellence in major subject.
2. Application for the degree with distinction should be made at the time of entering the College, but may, however, be postponed until the opening of the senior year.
3. At the time of application the student shall, after conference with the Dean of the College of Education, or some other member of the Faculty appointed for that purpose, select a subject for his thesis, which must be formally approved and recorded.
4. The presentation of a satisfactory thesis upon some subject within the major field of study not later than May 1, senior year.
5. At the time of application the student must have an average of one and one-half honor points per credit hour in all previous work.
6. At the time of graduation the student must have met all conditions applying to the Bachelor's degree in Education; must show a record of one and one-half honor points per credit hour in *four fifths of all work pursued throughout his entire course, and*
7. Must be recommended to the Faculty for the degree with distinction, which recommendation must be approved by the vote of the Faculty of the College.

In the case of honor students wishing to qualify for the teacher's certificate, it is understood that they shall be required to elect not more than twenty-two credits in Education, such twenty-two credits to include

all of the prerequisite work in Psychology. The required course will include Practice Teaching, Technique of Teaching, and one teachers' course.

GRADUATE WORK IN EDUCATION

Graduate study.—Graduate work in Education leading to the degree of Master of Arts or Doctor of Philosophy may be pursued in the Graduate School. Students who desire to undertake graduate work with Education as a major must have had at least a year's work in Psychology, and, in addition to this, a total of not less than twelve credits in Education. Students who desire to undertake graduate work with Education as a minor must have at least a year's work in Psychology, and, in addition to this, a total of not less than six credits in Education. Graduates, holding a Bachelor's degree, who have less than twelve credits in undergraduate courses in Education, will be obliged to increase the number of credits required for a major or a minor in Education by the difference between twelve and the number of undergraduate credits in Education which they present. Such students will not, however, be barred from counting all the time spent at the University toward satisfying the residence requirements of graduate work, provided the work which they pursue is approved by the Dean of the Graduate School.

Graduate work may be pursued during summer sessions. The Master's degree may ordinarily be completed in four summer sessions. For full statement of regulations, consult Graduate School Bulletin.

SPECIAL OPPORTUNITIES FOR TEACHERS IN SERVICE

Afternoon and Saturday morning classes, correspondence lessons, extension classes, and the Summer Session are the chief channels through which the College of Education seeks to discharge its obligation to teachers in service.

Teacher Training through Extension Courses

The General Extension Division offers excellent opportunities for teachers and others to pursue courses carrying credit for the Bachelor of Arts degree or for the professional state teachers' certificate, either by correspondence lessons or by joining an extension class. For further information address the General Extension Division, University of Minnesota.

Summer Session

The Summer Session conducted by the University offers unusual opportunities for professional training to undergraduates, graduates, superintendents and principals, teachers in service, and candidates for first grade and second grade state professional certificates. The Summer Session of 1920 will begin Monday, June 21.

EMPLOYMENT BUREAUS

Appointment Bureau.—The University of Minnesota maintains an Appointment Bureau which endeavors to place graduates of the University of Minnesota in positions best suited to their training and experience. Students looking forward to teaching should register during the

first semester of their senior year. No fee, however, will be charged to those who register before February 15. Complete instructions and registration blanks should be secured at the office of the Appointments Bureau. During the year 1919-20, the general office of this Bureau will be located in the College of Education Building, Room 114. Special offices, however, will be maintained at the College of Agriculture, Forestry, and Home Economics under the direction of Professor A. V. Storm for those desiring to teach agriculture or domestic science.

State Teachers' Employment Bureau.—The State Teachers' Employment Bureau, located in the State Historical Building, St. Paul, under the direction of Mr. E. T. Critchett, offers its services to all teachers and prospective teachers. The fee for registration is \$3.

Neither the University of Minnesota nor the State Teachers' Employment Bureau exacts any commission.

COURSES OF STUDY

DEPARTMENT

Every course listed in this bulletin counts in the College of Education.

GUIDANCE IN THE SELECTION OF COURSES

Superintendents and Graded School Principals

It is desirable that prospective superintendents and principals of graded schools, before entering upon their duties, shall have had courses in school administration and school supervision in some recognized normal school or college. Students who wish to qualify for a supervisor's certificate will be required to earn thirty-six credits in the following courses: Education 3, 11, 106-107-108, 111, 114-115, 119-120, 121, 160-161-162, 124-125-126, 134-135, 136, 137-138-139, 141, 142, 201-202-203, 205-206-207. Of the above courses the following are required for the certificate: 111, 121, 160-161-162, 124-125-126, 134-135.

Graduate Students

All courses bearing numbers of 100 and above are open to graduate students. Before attempting to make out their programs, graduate students in Education should consult the Dean of the College of Education and the Dean of the Graduate School. Attention is called to the fact that Course 126-127 is ordinarily required of all candidates for advanced degrees. Courses bearing numbers 200 and above are open to graduate students only.

All graduate students majoring in Education are required to meet with the department staff every alternate Monday evening from 7:15 to 9:00 for conference regarding subjects of original investigation. This work carries no credit. See also page 15 of this bulletin.

Candidates for State Professional Certificates

Unclassed students, candidates for the state professional certificate, may pursue courses in residence or by correspondence or in extension classes. For guidance in the selection of courses relating to this certificate, consult statement, State Professional Teachers' Certificate, page 18.

Undergraduates

Students should consult carefully the departmental descriptions of courses required for admission to teachers' course. The teachers' course in each subject must be taken in advance of or contemporaneously with practice teaching. For some subjects more than a minor is required for admission to teachers' courses in the case of students who wish to offer the subject only as a minor.

See the following topics in this bulletin: (1) University teacher's certificate, page 18; (2) special training courses, page 20; (3) admission, page 8; (4) prerequisites for teachers' courses, page 18.

THE UNIVERSITY TEACHERS' CERTIFICATE

Beginning with the year 1919-20 students on the main campus entering the junior class expecting to receive the teacher's certificate from the University of Minnesota shall be registrants in the College of Education.

Beginning with the year 1920-21 students on the Farm campus expecting to receive the teacher's certificate from the University shall be registrants in the College of Education.

All candidates for the teacher's certificate who are registered in other colleges, who expect to graduate in 1919-20 may continue their registration in these colleges if they so desire.

All students without teaching experience, desiring a University teacher's certificate will be required to comply with the requirements listed below. Such students will also be required to complete a two years' course leading to the degree of Bachelor of Arts (in Education).

Candidates for this degree may major in any department offering work in the College of Education.

Recipients of the degree of Bachelor of Arts (in Education) and of the University teachers' certificate may, by a proper selection of studies during their regular course, become eligible for recommendation or endorsement for one of the special certificates described on pages 12 to 14.

Prescribed Course of Study for University Teachers' Certificate

The College of Education has adopted the prescribed course of study outlined below, for the University teacher's certificate, and for the degree of Bachelor of Arts (in Education). This course applies to seniors only.

| | | |
|----------|---|-----------|
| 1. | Brief Course in History of Education..... | 5 credits |
| | or | |
| 101-102- | | |
| 103 | History of Education..... | 9 credits |
| 3. | Social Aspects of Education..... | 3 credits |
| 55. | Elementary Educational Psychology..... | 3 credits |
| 11. | Technique of Teaching..... | 3 credits |
| 15. | Practice Teaching..... | 5 credits |
| | Special Methods at least..... | 3 credits |

The course prescribed for juniors is as follows:

Prerequisites: Two years of college work including 10 quarter credits in Psychology, at least 5 of which may be in Educational Psychology. Students registering in the College of Education will be expected to earn a minimum of 22 credits in Education courses. Eleven of these credits should be completed in the junior year and eleven in the senior year. With the advice of the Dean or the special advisers appointed by him a student may be permitted to substitute other courses for the first three listed below in accordance with the special phase of educational work for which he is preparing.

The foregoing schedule of requirements does not apply to students who are registered in any of the special curricula in the College of Education, as for example:

Home Economics, Agriculture, Teacher Training in High School, Home and School Visitors, Teachers of Defective Children, Consolidated School Principals, Special Supervisorships.

ADVISERS FOR STUDENTS IN THE COLLEGE OF EDUCATION

| SUBJECT | NAME OF INSTRUCTOR | ROOM |
|---|----------------------|--------|
| Educational Administration..... | L. D. Coffman..... | 103Ed |
| History of Education..... | F. H. Swift..... | 214Ed |
| Educational Psychology..... | M. E. Haggerty..... | PhP |
| Trade and Industrial Education..... | Arthur F. Payne..... | 207Ed |
| Agricultural Education..... | A. V. Storm..... | 209Ad |
| Art Education..... | Ruth Raymond..... | 303MA |
| Botany..... | A. M. Johnson..... | 16AB |
| Chemistry..... | I. W. Geiger..... | 339C |
| Economics..... | G. W. Dowrie..... | 108MA |
| English, Rhetoric, Public Speaking..... | J. M. Thomas..... | 222F |
| Geography..... | C. J. Posey..... | 205P |
| German..... | C. Schlenker..... | 211F |
| History..... | A. C. Krey..... | 220Lib |
| Home Economics Education..... | Mildred Weigley..... | 202HE |
| Latin..... | J. B. Pike..... | 118F |
| Mathematics..... | W. H. Bussey..... | 100F |
| Music..... | T. P. Giddings..... | 103Ed |
| Physical Education for Women..... | J. Anna Norris..... | WGm |
| Physics..... | H. A. Erikson..... | 20PH |
| Romance Languages..... | E. W. Olmsted..... | 200F |
| Sociology..... | A. J. Todd..... | 10F |

PRACTICE TEACHING—PREREQUISITES

Opportunity for the practice teaching is provided in part by the University High School and in part by the Minneapolis city schools.

Education 1 or 101-102-103, 3, 11 and the teachers' course in the department in which the student wishes to do practice teaching, together with all subjects required by the department concerned as prerequisite to the teachers' course (departmental statement) are prerequisite to the course in practice teaching. In cases where the teachers' course extends throughout two quarters students will in exceptional cases be permitted to do their practice teaching during the second quarter of their teacher's course.

ADMISSION TO PRACTICE TEACHING

Application and Credentials

No student will be permitted to do practice teaching who has not been definitely recommended by the department in which the subject lies as being well prepared from the standpoint of subject-matter.

All assignments to practice teaching are made by the Principal of the University High School. Before registering for this work students must consult with him and submit: (1) the departmental recommendation referred to above and (2) a statement from the Registrar showing the

courses they are offering as prerequisites including, (a) the courses in Education, and (b) the courses in the department concerned. This statement must show when these courses were taken and the grade received and it must be followed by a formal statement that the student has satisfied all the prerequisites for practice teaching. Special blanks for this purpose may be secured at the office of the high-school Principal.

Students at the College of Agriculture, Forestry, and Home Economics desiring to qualify as teachers will be required to comply with the usual requirements for practice teaching. Arrangements for this work will be made by Professor Storm and Miss Weigley.

Credits allowed in Agriculture and Home Economics.—A maximum of twenty-seven credits is elective from courses in agriculture and home economics.

SPECIAL TRAINING COURSES

DEPARTMENT OF AGRICULTURAL EDUCATION

The special professional courses offered by the College of Education for the preparation of teachers, superintendents, and supervisors of agriculture are given in the Department of Agricultural Education at University Farm. (See departmental statement, pages 34-39.)

COMMERCIAL TRAINING

The demand for university graduates as commercial teachers has been greater than the University has been able to meet. A new requirement of the State Department that teachers of commercial subjects must be college graduates will intensify this demand. The University has as yet made no arrangements to offer the technical subjects required for this work, such as stenography, typewriting, penmanship, bookkeeping, etc. Nevertheless, by a proper selection of courses in English, rhetoric, foreign language, history, economics, psychology, and education, students who have secured a knowledge of the technical subjects elsewhere can get a broad and sound foundation for this work during the university course.

DEPARTMENT OF HOME ECONOMICS EDUCATION

The special professional courses offered by the College of Education in home economics for the training of teachers of home economics are given by the Department of Home Economics Education at University Farm. (See department statement, pages 40, 41.)

DEPARTMENT OF TRADE AND INDUSTRIAL EDUCATION

The Department of Education will offer special instruction in trade and industrial education for persons who wish to qualify to teach under the Smith-Hughes Act. For description of courses in this field, see special folder; also see page 41 of this bulletin.

HIGH-SCHOOL TEACHER-TRAINING DEPARTMENTS

The College of Education offers a definite course of study for the preparation of teachers for high-school teacher-training departments.

This course is open only to teachers who have had two years of rural teaching experience and who in addition to this are graduates from the advanced course of a Minnesota state normal school or who possess equivalent professional preparation.

NOTE: To this second requirement, exceptions may be made in the case of teachers already engaged in high-school training departments and in certain other individual cases where circumstances justify the same.

Ordinarily two years will be required to complete this course. However, teachers already engaged in high-school training departments and holding first grade professional certificates and who are unable to absent themselves from their duties for more than a year will be permitted to deviate from the prescribed course of study and to elect such subjects as will be of most immediate use to them in their work.

Students who complete the course offered by the College of Education for teachers of training departments will be eligible for the endorsement of the State Department of Education as heads of training departments in high schools. The course as outlined (see pages 44 to 45) provides Education as a major study, with Sociology and English as minors. The selection of these two subjects as minors has been based upon the nearness of their relation to the work of the rural school teacher. The Education courses are all required, but other minors may be selected upon approval. The attention of teachers desiring to become teachers in high-school training departments is called to the following rules recently passed by the High School Board which provides that after 1918 all candidates for this work shall be both normal school and college graduates.

TEACHERS AND SUPERVISORS OF PHYSICAL EDUCATION

The special professional course offered by the College of Education for the preparation of teachers and supervisors of Physical Education appears on pages 36 to 38.

TRAINING COURSE FOR HOME VISITORS AND VOCATIONAL ADVISERS

For description of this course, see pages 49 to 50.

KINDERGARTEN AND ELEMENTARY TEACHERS

The College of Education offers opportunity for advanced study to teachers who have had adequate normal school training and who wish to take further preparation for work as principals, supervisors, or teachers of elementary schools. A special certificate will be granted to normal school graduates who spend two years in the College of Education taking advanced work for the purpose of becoming better teachers of elementary schools. The following agreements between the presidents of the state normal schools of Minnesota and the Executive Faculty of the College of Education, reached at an informal conference, April 3, 1915, make it possible for students in the College of Education, who discover during their course that their taste and ability lie in the elementary field, to transfer from the College of Education to one of the normal schools at the opening of their senior year and thus prepare themselves as elementary teachers or as kindergartners without loss of time.

Agreements between Normal Schools and College of Education

1. That less than one year of residence at a state normal school for the purpose of preparing for kindergarten or elementary school work would not be adequate.

2. That the normal schools would be willing to confer their regular diploma upon university students coming to them from the College of Education, who had had three years of college work, upon the satisfactory completion of one year in the normal schools.

3. That these provisions be limited to students previously registered in the College of Education.

4. That they should not apply to students who had entered the College of Education upon the basis of normal school credits.

PUBLIC SCHOOL MUSIC

See Courses 75-76-77 and 78-79-80 under statement of Department of Music.

DEPARTMENTAL STATEMENTS

COLLEGE OF EDUCATION DEPARTMENT OF ART EDUCATION

Assistant Professor RUTH RAYMOND; Instructor HAZEL SMALL; Assistants IDA PELL CONKLIN, HELEN MARR, FLORENCE D. WILLETTTS; Librarian FRANCES ADAMS.

The B.S. degree, with a major in Art Education, involving recommendation for a supervisor of Art in the grades and high schools, or for a departmental art teacher, requires 180 credit hours, with a minimum of 180 honor points.

DISTRIBUTION OF HOURS

- I. Major subject—Art (72 credits)—including the following minimal requirements:
 - 18 credits in Design
 - 18 credits in Drawing
 - 12 credits in Handicrafts
 - 5 credits in Art History and Appreciation
 - 3 credits in Teachers' Course in Art
 - 6 credits in Practice Teaching
- II. Minor subject—Education—with the following minimal requirements:
 - 3 credits in Educational Psychology
 - 5 credits in History of Education
 - 3 credits in Technique of Teaching
 - 3 credits in Social Aspects of Education

See teacher's course and practice teaching above.
- III. Minor subject—chosen from any department offering work in the College of Education.
See departmental statements in Education Bulletin.
- IV. Required supporting subjects:
 - 9 credits in Rhetoric
 - 10 credits in General Psychology
 - 3 or 5 credits in Textiles
 - 10 credits in History¹
 - 10 credits in Science²
- V. Electives, which are recommended to be in a science or a social science, if the minor subject has not involved one of these departments.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|---------------------------|---------|---------------------------------------|------------|-----------------|
| *29f-30w-31s ⁴ | 9 | Fundamental Principles of Design..... | All | None |

¹ If high-school history of ancient, medieval, and modern periods is not offered for entrance.

² If the minor subject is Home Economics or Trade Education.

³ These courses are especially recommended to those desiring training for occupational therapy and other forms of social service.

⁴ Course 29 will not be repeated in winter and spring quarters but Home Economics 51 will be accepted as of equivalent value.

NOTE: Hours in parentheses are laboratory hours which may be adjusted to suit individual schedules.

Courses equivalent to parts of those listed in design, drawing, and the handicrafts will be offered on Saturday mornings to meet the needs of Public School teachers. Those interested will consult with the Art Education Faculty.

| No. | Credits | Title | Offered to | Prereq. courses |
|--------------------------------|---------|---|---------------------|---|
| (29su or 31su) | | (II) III (IV) TThS | 303MA | Raymond |
| 40f-41w-42s-40su ² | 9 | Principles of Harmony in Form and Color..... | Soph., jr., sr. | 29-30 |
| 53f-54w | 6 | (I) II (III) TThS Design for the Consumer.. | 303MA Jr., sr. | Raymond 18 cr. in Design |
| 45w-46s | 6 | V, VI (VII) Commercial and Industrial Design..... | 303MA Jr., sr. | Raymond 24 cr. in Design |
| | | Ar Ar | 303MA | |
| <i>Drawing</i> | | | | |
| 32f-33w-34s ¹ | 9 | Freehand Drawing and Comp..... | All | None |
| | | (I) II, III (IV) M Still Life W Composition F Sketch | 302MA | Small, Raymond |
| 43f-44w-45s-43w-44s | 9 | (I) TThS Freehand Drawing Course II..... | Soph., jr., sr. | 32-33-34 |
| 44s-45su | | I, II (III) MWF Advanced Drawing ⁴ Ar-ranged..... | 302MA Jr., sr. | Small, Raymond |
| | | Mechanical Drawing Ar-ranged with Trade and Indus. Dept. | | |
| <i>Handicrafts¹</i> | | | | |
| 35f | 1 | Clay Modeling..... | All | None |
| | | (V)VI, VII (VIII) W | 303MA | Small |
| 37f | 2 | Elm. Weaving and Basketry and Allied Crafts.. | All | None |
| | | (V)VI, VII(VIII) TTh | 302MA | Marr |
| 43f | 2 | Pottery | | |
| | | (V),VI,VII(VIII) M | Soph., jr., sr. | 6 cr. in Design 6 cr. in Drawing |
| | | | 303MA | Marr |
| 43w | 2 | Advanced Pottery..... | Jr., sr. | |
| | | Ar VI VII VIII TTh | 303MA and Kiln Room | Marr |
| 36w | 1 | Cardboard and Paper Const. | | |
| | | (V)VI, VII(VIII) W | 302MA | Small |
| | 2 | Book Binding | | |
| | | (V)VI, VII(VIII) TTh | | |
| 50w | 2 or 3 | Application of Design in Needlecraft..... | Soph., jr., sr. | 9 cr. in Design |
| | | (V)VI, VII M (W) F | 303MA | Marr |
| 52s | 2 or 3 | Application of Design to Fabrics..... | Fr.,soph.,jr.,sr. | 6 cr. in Design |
| | | V, VI, VII and Ar TTh | 303MA | Marr |
| 47s | 2 | Metal Work..... | Soph., jr., sr. | 12 cr. in Design |
| | | | Shop | |
| | 3 | Wood Work | | |
| | | Arranged in Manual Train. Dept. | | |
| | 3 | Weaving on Table Looms | | |
| | | Arranged with Home Econ. Dept. | | |
| 56s | 3 | Teachers' Course in Art... | Jr., sr. | 15 cr. in Design 15 cr. in Drawing 9 in Handicrafts |

¹ These courses are especially recommended to those desiring training for occupational therapy and other forms of social service.

² These courses are especially recommended to those desiring training for occupational therapy and other forms of social service.

| No. | Credits | Title | Offered to | Prereq. courses |
|------------------|---------|--|----------------|-----------------|
| | | VI, VII MWF | 303MA | |
| 57, 58, 59 | 6 | Practice Teaching..... | Jr., sr. | |
| | | V VI (VII) TTh | Public Schools | Raymond |
| Home Econ. 53 | 3 or 5 | Art. Hist. and Apprec. Ar. with Greek and Hist. Dept. | | Goldstein |

DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND SUPERVISION

Professors LOTUS D. COFFMAN, LEONARD V. KOOS, ALBERT W. RANKIN,
RAYMOND W. SIES, FLETCHER H. SWIFT; Assistant Professor ROSS L.
FINNEY.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|-----------------|---------|--|------------|------------------------|
| *3f,w,s | 3 | Social Aspects of Education.. | Jr., sr. | Psychol. 10 cr. |
| 5s | 3 | American School..... | Jr., sr. | 10 cr. in Psych. |
| 20f | 3 | High-School Curriculum... | Jr., sr. | |
| *113s | 3 | Secondary School Move- ments..... | Sr., grad. | |
| *119f-120w | 6 | School Curricula..... | Sr., grad. | 1 or 101-102-103 and 3 |
| *119Tw-120Ts | 4 | School Curricula (for Teach- ers)..... | Sr., grad. | 1 or 101-102-103 and 3 |
| *121f,w,s | 3 | School Organ. and Admin... | Sr., grad. | 1 or 101-102-103 and 3 |
| *124f-125w-126s | 9 | Educational Admin..... | Sr., grad. | 121 |
| *141f | 3 | School Sanitation..... | Sr., grad. | 1 or 101-102-103 and 3 |
| *141Tf | 2 | School Sanitation (for Teach- ers)..... | | 1 or 101-102-103 and 3 |
| *142s | 3 | Industrial Education..... | Sr., grad. | 1 or 101-102-103 and 3 |
| *160f-161w-162s | 6 | Theory of Supervision..... | Sr., grad. | 1 or 101-102-103 and 3 |
| *164f | 3 | Problems of High-School Admin..... | Sr., grad. | 1 or 101-102-103 and 3 |
| *167f | 3 | Junior High School..... | Sr., grad. | |
| *205f-206w-207s | 6 | Seminar in Educ. Admin.... | Grad. | 124-5-6, 160-161-162 |
| *208f-209w-210s | 6 | Seminar in American School. | Grad. | 1 or 101-102-103 and 3 |
| *215-216-217 | 6 | Seminar in Educational Sociology..... | Grad. | |
| *218-219-220 | 6 | Seminar in Secondary School Problems..... | Grad. | 113, 164 |

*3f,w,s. SOCIAL ASPECTS OF EDUCATION. The school as a community factor; the present peculiar relation of the school to social problems; the function of the school in these relations. FINNEY.

*5s. THE AMERICAN SCHOOL. A brief survey of the factors determining the problem of public education in America, followed by a brief account of the development and organization of typical state school systems. SWIFT.

*20f. HIGH SCHOOL CURRICULUM. Types of curricula, constants and variables, sequences, time limits, distribution of subject-matter by years and by units. KOOS.

- *113s. *SECONDARY EDUCATION MOVEMENTS*. Some of the movements considered are: changed concepts of method, reorganization as affecting the grades below the high school and work beyond the four years of high school, supervised study, socialization of curricula, public control. MILLER.
- *119f-120w. *SCHOOL CURRICULA*. The ideas implicit in a democratic society and an attempt to apply those ideas in the selection of material of school curricula. This will involve some consideration of the constructive aims and methods of education. RANKIN.
- *119Tw-120Ts. *SCHOOL CURRICULA*. Same as above for teachers.
- *121f,w,s. *SCHOOL ORGANIZATION AND ADMINISTRATION*. An introductory course in school administration for students of teaching experience and for those looking forward to work as principals and superintendents. RANKIN.
- *124f-125w-126s. *EDUCATIONAL ADMINISTRATION*. The interpretation of present tendencies in the administration of state and city school systems. SIES.
- *141f. *SCHOOL SANITATION*. A course in school hygiene in its broader aspects. Designed for all teachers and supervisors who are responsible for the health of school children. Treats of medical supervision and other problems arising from school environment. RANKIN.
- *141Tf. *SCHOOL SANITATION*. Same as above for teachers.
- *142s. *INDUSTRIAL EDUCATION*. Existing types of industrial and vocational schools and systems of training. Comparison of conditions in America and foreign countries. Organization of course of study. RANKIN.
- *160f-161w-162s. *THEORY OF SUPERVISION*. The problems involved in the training of teachers in service; studies of qualities of merit in teachers; factors in service; factors in selecting teachers; the distribution of subject-matter by grades; time allotment of studies. SIES.
- *164f. *PROBLEMS OF HIGH-SCHOOL ADMINISTRATION*. A study of the different types of high schools, units of administration, costs, forms of organization, graduation requirements, and extra-curricular activities. Koos.
- *167f. *JUNIOR HIGH SCHOOL*. The history of the Junior High School Movement, its purposes and results. Changes in curriculum and methods of instruction, special groups appealed to, modifications in plant and equipment Koos.
- *205f-206w-207s. *SEMINAR IN EDUCATIONAL ADMINISTRATION*. COFFMAN.
- *208f-209w-210s. *SEMINAR IN AMERICAN SCHOOL*. Research course devoted to intensive study of certain factors determining the problem of

public education in America. The following may be considered typical problems; school support, school supervision, administration units.

*215f-216w-217s. SEMINAR IN EDUCATIONAL SOCIOLOGY. A study of the social mind, the social organization, social groups, and the pressures and sanctions responsible for modification within the curriculum, methods of instruction and forms of organization of the public school. FINNEY.

*218-219w-220s. SEMINAR IN SECONDARY SCHOOL PROBLEMS. KOOS.

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

Professor MELVIN E. HAGGERTY; Assistant Professors HERMIONE L. DEALEY, MARVIN J. VAN WAGENEN.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|-----------------|---------|---|------------|--|
| 55f,w,s | 3 | Elm. Educ. Psychol..... | Jr., sr. | 6 quarter cr. in Psychol. of which 3 may be in Ed. Psychol. |
| *106f-107w-108s | 9 | Adv. Educ. Psychology..... | Sr., grad. | 55 or equivalent |
| *110w | 3 | Psychology of Secondary School Subjects..... | Sr., grad. | 55 or equivalent |
| *111s | 3 | Educational Diagnosis..... | Sr., grad. | 55 or equivalent |
| *111Tf-112Tw | 4 | Educ. Diagnosis (for teachers)... | | 55 or equivalent |
| *116s | 2 | Psychology of Elem. School Sub.. | Sr., grad. | |
| *126f-127w | 4 | Methods in Educ. Research..... | Sr., grad. | |
| *128s | 2 | Review of Statistical Studies.... | Sr., grad. | 126-127 |
| *134f-135w-136s | 6 | Mental Tests and Mental Diag- nosis..... | Sr., grad. | 55 or equivalent |
| *137f-138w-139s | 3 to 9 | Experimental Education..... | Sr., grad. | Adv. courses nec- essary to pursue problems. Con- sult Instructor |
| *140s | 2 | Psychology and Vocational Ad- visement..... | Sr., grad. | |
| *149f-150w-151s | 3 to 9 | Psycho-Educational Clinic..... | Sr., grad. | Ed. 134-135-136 or equiv. |
| *156s | 3 | Psychol. of Vocational Education | Sr., grad. | |
| *201f-202w-203s | 6 | Seminar in Educational Psy- chology..... | Sr., grad. | |

55f,w,s. ELEMENTARY EDUCATIONAL PSYCHOLOGY. A survey of funda-
mental facts of human behavior involved in educational activities open
to seniors, juniors and qualified students in third quarter of sopho-
more year upon advice of Prof. Haggerty. HAGGERTY, DEALEY.

*106f-107w-108s. ADVANCED EDUCATIONAL PSYCHOLOGY. Advanced work in
genetic psychology, origin and nature of human organism, develop-
ment and control of instincts; their relation to group activities.

Methods of measuring rate of learning; study of typical learning experiments and an examination of the conditions of the most economic learning. Study of group and individual differences and their relations to educational practice. HAGGERTY.

*110w. PSYCHOLOGY OF SECONDARY SCHOOL SUBJECTS. Review of experimental results dealing with content of high-school curriculum, with a discussion of the bearing of these results upon selection of the content of high-school subjects and the methods of presenting it effectively. VAN WAGENEN.

*111s. EDUCATIONAL DIAGNOSIS. The typical educational problems involving educational scales and standard tests. Nature of tests, methods of use, analysis of results obtained, and programs of remedial educational procedure based on the results of the test. VAN WAGENEN.

*111Tf-112Tw. EDUCATIONAL DIAGNOSIS. Same as above for teachers.

*116s. PSYCHOLOGY OF ELEMENTARY SCHOOL SUBJECTS. Review of experimental results dealing with elementary school subject-matter; a discussion of the direct bearing of these findings upon selection and method of presentation of the content of various subjects of the elementary school curriculum. VAN WAGENEN.

*126f-127w. METHODS OF EDUCATIONAL RESEARCH. A study of statistical and other methods as applied to educational investigation. This course is ordinarily required of all candidates for advanced degrees. VAN WAGENEN.

*128s. REVIEW OF STATISTICAL STUDIES. A survey of statistical studies in education with special reference to the methods employed and the reliability of the results obtained. VAN WAGENEN.

*134f-135w-136s. MENTAL TESTS AND MENTAL DIAGNOSIS. Study of mental variation in children, its nature, degree, causes, and effects. A laboratory course in the study of individual differences by means of mental tests. Methods of treating superior and sub-normal children in the schools. HAGGERTY, DEALEY.

*137f-138w-139s. EXPERIMENTAL EDUCATION. The application of experimental methods to educational research. Problems in mental measurement, educational and mental diagnosis, and the psychology of learning, will be set as individual problems for properly prepared students. HAGGERTY, VAN WAGENEN.

*140s. PSYCHOLOGY AND VOCATIONAL ADVISEMENT. A study of different forms of measurement used in the analysis of individual behavior from the standpoint of special interests and vocational aptitudes and their relationship to various occupations. DEALEY.

*149f-150w-151s. **PSYCHO-EDUCATIONAL CLINIC.** Conducted in coöperation with the Department of Sociology and the Medical School clinics in pediatrics and nervous and mental diseases. Students will receive systematic instruction in giving psychological examinations and in scientific interpretation of data. HAGGERTY, DEALEY.

*156s. **PSYCHOLOGY OF VOCATIONAL EDUCATION.** A practical course covering psychological facts and principles involved in vocational education, and in industrial and commercial administration. Attention is given to matters of personnel, acquisition of skill, motivation of workers, and efficiency of administration. HAGGERTY.

*201f-202w-203s. **SEMINAR IN EDUCATIONAL PSYCHOLOGY.** A research course for graduate students. Required of all students writing theses in Education Psychology. HAGGERTY.

DEPARTMENT OF THE HISTORY AND PHILOSOPHY OF EDUCATION

Professor FLETCHER H. SWIFT; Instructor JEAN H. ALEXANDER.

| COURSES | | | | |
|-----------------|---------|---|--------------------|--|
| No. | Credits | Title | Offered to | Prereq. courses |
| *1f,w,s | 5 | Brief Course in History of Education..... | Jr., sr. | 10 quarter cr. in Psychol. of which 5 may be in Educ. Psychol. |
| *101f | 3 | Foundations of Modern Educ.... | Jr., sr., grad. | 10 quarter cr. in Psychol. of which 5 may be in Educ. Psychol. and 6 cr. in Dept. of History |
| *102w | 3 | History of Modern Secondary and Higher Education..... | Jr., sr., grad. | Same as for 101 |
| *103s | 3 | History of Modern Elementary Education..... | Jr., sr., grad. | Same as for 101 and 102 |
| *129w-130s | 6 | Educational Classics..... | Jr., sr., grad. | 1 or 101, 102, 103 |
| *131w-132s | 6 | Comparative School Systems.... | Jr., sr., grad. | 1 or 101, 102, 103 |
| *146w | 3 | Hist. and Principles of Religious Education..... | Jr., sr., grad. | Same as for 1 |
| *148s | 3 | Hist. of Education in the United States..... | Jr., sr., grad. | Same as for 1 |
| *211f-212w-213s | 6 | Seminar in History of Education. | Grad. | Same as for 101-102-103 or its equivalent including 6 cr. in Dept. of History |

- *1f,w,s. BRIEF COURSE IN HISTORY OF EDUCATION. Current school problems and educational theories in the light of their history. Emphasis upon secondary education and those aspects of education of most immediate concern to high-school teachers. SWIFT, ALEXANDER.
- *101f. FOUNDATIONS OF MODERN EDUCATION. Historical analysis and interpretation of the more important elements in Modern Education derived from the Hebrews, Greeks, Romans, Middle Ages, and Renaissance. SWIFT.
- *102w. HISTORY OF MODERN SECONDARY AND HIGHER EDUCATION. A survey of existing types of American and European secondary and higher schools, followed by a historical study of their origin, aims, growth. SWIFT.
- *103s. HISTORY OF MODERN ELEMENTARY EDUCATION. The institutions, theories and problems of modern elementary education in the light of their history. Emphasis upon the rise of state systems and upon the history of modern educational reform. SWIFT.
- *129w-130s. EDUCATIONAL CLASSICS. An intensive study of selected writings of educational leaders; first quarter, Plato, Aristotle, Quintilian, Comenius, Locke; second quarter, Rousseau, Pestalozzi, Herbart, Froebel, and Dewey. Students may register for either quarter. ALEXANDER.
- *131w-132s. COMPARATIVE SCHOOL SYSTEMS. A survey of the existing school systems of France, England, Germany, Denmark. Emphasis upon present problems. Special reference to educational conditions in the United States. Students may register for either quarter. ALEXANDER.
- *146w. HISTORY AND PRINCIPLES OF RELIGIOUS EDUCATION. Influence of religion and religious education as social and spiritual forces among certain selected types. Principles of education as applied to religious instruction and training. SWIFT.
- *148s. HISTORY OF EDUCATION IN THE UNITED STATES. Evolution of American ideals, institutions, and practices in elementary and secondary education. Emphasis upon movements of the early nineteenth century. Development of state school systems and the rise of the high school. ALEXANDER.
- *211f-212w-213s. SEMINAR IN HISTORY OF EDUCATION. Historical investigation of educational problems. Designed to train students in methods of historical investigation; problems to be selected somewhat upon the basis of students' interest. SWIFT.

DEPARTMENT OF THEORY AND PRACTICE OF TEACHING

Associate Professor WILFORD S. MILLER, Head of Department; Professors GISLE BOTHNE, CHARLES P. SIGERFOOS, ANDREW A. STOMBERG, Associate Professor AUGUST C. KREY; Assistant Professors ISAAC W. GEIGER, CHESSELY J. POSEY, OSCAR W. JUNEK; Instructors MAY S. KISSOCK, BERTHA W. CLARK, MARIE B. DENEEN, JOSEPHINE DE BOER, SOPHIA A. HUBMAN, REWEY BELLE INGLIS, ARTHUR M. JOHNSON, JAMES F. MACKELL, FRANCES M. MOREHOUSE, WILLIAM D. REEVE, GERTRUDE B. SCHILL, ALICE J. H. TOLG; Special Instructors THADDEUS P. GIDDINGS, LYNNE E. STOCKWELL.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|------------------------------|---------|--|------------|--|
| 11f,w,s | 3 | Technique of Teaching. | Jr., sr., | 10 quarter credits in Psychol. of which 5 may be in Educ. Psych. |
| 15f,w,s | 5 | Practice Teaching. <i>Special Methods</i> | Sr., grad. | See statement |
| <i>Americanization</i> | | | | |
| 127 | 3 | Technique of Teaching Adults. . | Jr., sr. | Am. 125 |
| <i>An. Biol.</i> | | | | |
| <i>Botany</i> | | | | |
| 61f,w,s | 5 | Teachers' Course in Bot. | Jr., sr. | 18 quarter cr. in Botany |
| <i>Chemistry</i> | | | | |
| 19s | 3 | Teachers' Course in Chem. | Jr., sr. | General Chem. and Qual. Analysis |
| <i>English</i> | | | | |
| 80f,w | 4 | Teachers' Course in English. . . | Jr., sr. | See statement |
| <i>Geography</i> | | | | |
| 55f | 3 | Teachers' Course in Geog. | Jr., sr. | A regional Geog. course and antecedents thereto |
| <i>German</i> | | | | |
| 71 | 3 | Teachers' Course in German. . | Jr., sr. | 52 and 55 or 6 starred credits |
| <i>History</i> | | | | |
| 56 | 3 | Teachers' Course in History. . . | Sr. | See statement |
| <i>Latin</i> | | | | |
| 81f,w | 3 | Teachers' Course in Latin. | Jr., sr. | Any two of courses 21-33 or equiv. |
| <i>Manual Training</i> | | | | |
| 13f | 3 | Organ. and Superv. of Manual Training. | Sr. | |
| <i>Mathematics</i> | | | | |
| 54f,s | 5 | Teachers' Course in Math. | Jr., sr. | Math. 50 |
| <i>Music</i> | | | | |
| 75f-76w-77s | 9 | Public School Music. | Jr., sr. | |
| 78f-79w-80s | 9 | Adv. Public School Music. | Sr. | 75-76-77 |
| <i>Physics</i> | | | | |
| 90s | 3 | Teachers' Course in Physics. . . | Jr., sr. | 20 cr. in Physics. |
| <i>Phys. Educ. for Women</i> | | | | |
| 16 | 3 | Anatomy and Kinesiology. | Sr. | An. Biol. 1-2 |
| 17 | 3 | Prin. of Gymnastic Exercise. . . | Sr. | P.E. 4-5-6, 31-32-33, 34-35-36, 13, 16 |

| No. | Credits | Title | Offered to | Prereq. courses |
|--------------------------|---------|---------------------------------|------------|---|
| 18 | 3 | Teachers' Course in Play..... | Sr. | P.E. 4-5-6, 31-32-33, 34-35-36, 13 |
| <i>Romance Languages</i> | | | | |
| 90f,s | 3 | Teachers' Course in French..... | Jr., sr. | 13-14-15 and 1 Conv. Comp. course, 1 literary course |
| 52w | 3 | Teachers' Course in Spanish.... | Jr., sr. | 35-36 and 1 Conv. Comp. course, 1 literary course in Spanish |
| <i>Norwegian</i> | | | | |
| *116s | 3 | Teachers' Course in Norweg.... | Sr., grad. | Scand. 4f-5w or 10f- 11w-12s |
| <i>Swedish</i> | | | | |
| *115w | 3 | Teachers' Course in Swedish.... | Sr., grad. | Scand. 10f-11w-12s or 4f-5w |

11f,w,s. **TECHNIQUE OF TEACHING.** Types of classroom exercises; preparation of teaching plans; hygiene of instruction; classroom management; the professional ethics of teaching; observation of high-school work. MILLER, MOREHOUSE.

15f,w,s. **PRACTICE TEACHING.** Teaching under supervision in the University High School and in the Minneapolis city schools, in the regular secondary school subjects. The course calls for one period daily at the school where the work is assigned. MILLER.

127. **AMERICANIZATION, TECHNIQUE OF TEACHING ADULTS.** Methods of teaching adults—the foreign-speaking, the illiterate, the fatigued—in keeping with the dignity of mature years, and the mental processes of mature minds of foreigners. JUNEK, CLARK.

ANIMAL BIOLOGY—TEACHERS' COURSE. SIGERFOOS.

BOTANY 61f,w,s. TEACHERS' COURSE IN BOTANY. A course dealing with the principles and methods of teaching botany in high schools. JOHNSON.

CHEMISTRY 19s. TEACHERS' COURSE IN CHEMISTRY. A consideration of the fundamental principles of chemistry with particular reference to the teaching of chemistry in the high school. Discussion of such topics as training of the teacher, laboratory equipment, etc. GEIGER.

ENGLISH 80f,w. TEACHERS' COURSE IN ENGLISH. Methods of teaching English in high schools. Course of study, textbooks, and equipment; visits to high schools; theme correcting. Open to juniors, seniors, and graduates qualifying for a certificate to teach English as a major or minor subject. INGLIS.

GEOGRAPHY 55f. TEACHERS' COURSE IN GEOGRAPHY. A critical study of materials and methods of teaching secondary school geography. The relation of human activities to environment will be emphasized. For teachers of high-school geography. POSEY.

- GERMAN 71. TEACHERS' COURSE IN GERMAN. Lectures, readings, and reports; observation of classes. HUBMAN.
- HISTORY 56. TEACHERS' COURSE IN HISTORY. Open only to students who have 18 credits in History, including a starred course. Deals chiefly with the practical problems of teaching history and government in the secondary schools. Students planning to teach government must have 9 credits in Political Science. KREY.
- LATIN 81f,w. TEACHERS' COURSE IN LATIN. Class drill and discussion of various problems connected with secondary school work in Latin. DENEEN.
- MANUAL TRAINING 13f. ORGANIZATION AND SUPERVISION OF MANUAL TRAINING. History and aims of manual training, selection of equipment and supplies, courses of study, methods of presenting manual training to grade and high-school students, brief discussion of vocational education. STOCKWELL.
- MATHEMATICS 54f,s. TEACHERS' COURSE IN MATHEMATICS. For students preparing to become teachers of secondary school mathematics. Lectures, readings, discussions, methods of presentation, assignments, lesson plans, examinations, plans for beginning courses in elementary algebra and plane geometry. Aims and outcomes of education. REEVE.
- MUSIC 75f-76w-77s. PUBLIC SCHOOL MUSIC. Preparation for teachers and supervisors of music in the grades. Piano playing, singing, and sight reading prerequisite. Four hours in class and one half day weekly public school visiting. Practice teaching demanded. GIDDINGS.
- MUSIC 78f-79w-80s. ADVANCED PUBLIC SCHOOL MUSIC. Preparation for teachers and supervisors of music in high and normal schools. Four hours in class and one half day weekly in public school visiting. Practice teaching demanded. GIDDINGS.
- PHYSICS 90s. TEACHERS' COURSE IN PHYSICS. Intended to embrace fundamental conceptions of methods of teaching high-school physics. Special emphasis put upon laboratory side of subject. At least one year of college physics will be considered as a prerequisite for this course. MACKELL.
16. ANATOMY AND KINESIOLOGY. Anatomy of bones, joints, and muscles as it applies to muscular exercise. Study of gymnastic positions and movements from the standpoint of anatomy. TOLG.
17. PRINCIPLES OF GYMNASIIC EXERCISE. A study of the aims, purposes, and methods of physical education and the arrangement and progression of gymnastic exercises; technique of teaching and practice teaching within the class group. SCHILL.

18. **TEACHERS' COURSE IN PLAY.** A study of the various play theories, and play periods of childhood and adolescence, also lectures, discussions, and actual practice in the building, care, and administration of play-grounds and the conduct of play. KISSOCK.

ROMANCE LANGUAGES 90f,s. **TEACHERS' COURSE IN FRENCH.** Methods of teaching French in high schools, courses of study, textbooks, etc. Lectures, observations, and reports. Open to juniors and seniors qualifying for a certificate to teach French as a major or minor subject. Credit in Education only. DE BOER.

ROMANCE LANGUAGES 52w. **TEACHERS' COURSE IN SPANISH.** Methods of teaching Spanish in the high schools. Courses of study, textbooks, etc. Lectures, observation, and reports. Open to juniors and seniors qualifying for a certificate to teach Spanish as a major or minor subject. Credit in education only. DE BOER.

SCANDINAVIAN *115w. **TEACHERS' COURSE IN SWEDISH.** For students who expect to teach Swedish in the high schools. STOMBERG.

SCANDINAVIAN *116s. **TEACHERS' COURSE IN NORWEGIAN.** For students who expect to teach Norwegian in the high schools BOTHNE.

DEPARTMENT OF AGRICULTURAL EDUCATION

Professors ASHLEY V. STORM, DEXTER D. MAYNE,; Assistant Professors JOHN V. ANKENNEY, WILLIAM P. DYER, ALBERT M. FIELD; Extension Specialists THEODORE A. ERICKSON, GEORGE F. HOWARD.

GENERAL STATEMENT

Students desiring to procure the state professional certificate will begin their specialization with the junior year. It would be desirable to consult the chief of the Department of Agricultural Education earlier so as avoid any difficulties that may arise in the program of specialization.

COURSES IN AGRICULTURAL EDUCATION

Freshman Year

1. *Non-credit courses* required for graduation in addition to the 204 credit hours.
Freshman Lectures. A course of nine lectures intended primarily to familiarize the new student with the College, college customs, and methods of procedure. Offered only in the fall quarter.
2. *Military Drill.* Three hours per week throughout the year. Students found to be physically unfit may be required to substitute special corrective exercises in gymnasium.
- Physical Education 3w. Gymnasium and swimming. Two hours per week for one quarter.
3. *General courses.* The following courses may be registered for any quarter that they are offered except that the proper sequence of continuation courses and the prerequisites must be observed. Ordinarily, if Botany is registered for in the freshman year, registration for Zoology should be postponed until the sophomore year, and vice versa.

Agron. 1f,w,s, Farm Crops, 3

- An. Biol. 1f,w,s,su, General Zoology, 10. Should be postponed until the sophomore year by those who take Bot. 1-2.
- An. Husb. 1f,w, Types and Breeds of Livestock, 5.
- Bot. 1f,s-2w,f, General Botany, 10. Students entering college with a year of high-school botany satisfactory to the Department may omit Bot. 1 (see Bulletin of College of Agriculture, Forestry, and Home Economics) and substitute five credits elective later in the course of study. These courses should be postponed until the sophomore year by those registered for An. Biol. 1-2.
- Chem. 1f-2w-3s, General Inorganic Chemistry, 12. Students presenting a year of high-school chemistry may omit this course and register for Chem. 9-10. Those required to take this course because of inability to carry successfully Chem. 9-10, will be allowed not more than ten credits.
- Chem. 9f-10w, Advanced General Inorganic Chemistry, 10. Those required to take Chem. 1-2-3, are exempt.
- Dy. Husb. 1f,s, Elements of Dairying, 5.
- Econ. 5f,s, General Economics, 5. Open to freshmen only during their third quarter.
- Farm Eng. 10f,w, Farm Engineering, 3.
- Farm Eng. 11f,w, Applied Mathematics, 5. Students presenting a half year of high-school higher algebra may omit this course and substitute five credits elective later in their course of study.

Sophomore Year

- Hort. 90f,s, General Horticulture, 3. This course should be omitted by those intending to specialize in Horticulture or in Agricultural Education and three credits elective substituted later in their course of study.
- Phys. Educ. 1f, Personal Hygiene, 1.
- *Rhetoric 1f,w,s, Rhetoric I, 3.
- Rhetoric 2f,w,s, Rhetoric II, 3 (Rhet. 1)
- Rhetoric 3f,w,s, Rhetoric III, 3 (Rhet. 2)
- Rhetoric 4f,w,s, Elementary Rhetoric, 3. Required only of those who are found to be unable to carry Rhet. 1.
1. *Non-credit courses* required for graduation in addition to the 204 credit hours.
 - Military Drill. Three hours per week throughout the year. Students found to be physically unfit may be required to substitute special corrective exercises in gymnasium.
 2. *Freshman courses* which were not completed during the freshman year.
 3. *General courses.* The following courses may be registered for any quarter that they are offered except that the proper sequence of continuation courses and the prerequisites must be observed.
- Agr. Biochem. 7f,su-8w,su, General Agricultural Biochemistry, 10 (Chem. 10 cred.)
- Bact. 6f,w,s, Elementary Bacteriology, 4.
- Econ. 6f,w,s, Agricultural Economics, 3 (Econ. 5)
- Farm Eng. 3f,s, Mechanical Drawing, 3.
- Farm Eng. 21f-22w, Agricultural Physics, 10. Those presenting a year of high-school physics, and those selecting a line of specialization requiring Phys. 24, 41, 61, may omit this course and substitute ten credits elective later in their course of study.
- Pol. Sci. 1f, American Government, 5.
- Rhet. 11f,w,s, Argumentation, 5 (Rhet. 3)
- Rhet. 22f,w,s, Public Speaking, 5 (Rhet. 3).
4. *Special courses.* These courses with enough additional courses should be selected to make up from 15 to 18 credit hours each quarter. Full work for the year (3 quarters) consists of 51 credit hours. See special requirements in the Bulletin of the College of Agriculture, Forestry, and Home Economics.
- An. Husb. 2f, Livestock Judging, 3 (An. Husb. 1)
- Vet. Med. 8s, Veterinary Studies, 5.

Junior Year

1. *General Course.* Soils 1s, Soils, 5 (Chem. 10 cred.)
2. *Special Courses.*
 - Agri. Educ. 68w-69s, Home and School Gardening, 6
 - Agri. Educ. 11f,w,s, Principles of Vocational Education, 3

Agr. Educ. 21f,w, Vocational Education, 3, or Educ. 5, American School, 3.
 Agron. 11s, Farm Machinery, 3
 Agron. 121f, Cereal Crops, 3 (Agron. 1, Bot. 10 cred.)
 Agron. 122w, Corn and Potato Crops, 3 (Agron. 1, Bot. 10 cred.)
 Agron. 123s, Forage and Fiber Crops, 3 (Agron. 1, Bot. 10 cred.)
 An. Husb. 5w, Livestock Breeding, 3 (No. prereq. for students in Agr. Educ.)
 An. Husb. 8s, Elements of Feeding, 3
 Dy. Husb. 101f, Milk Production, 5 (Dy. Husb. 1)
 Ent. 3f, Elementary Economic Entomology, 3 (An. Biol. 10 cred.)
 Pl. Path. 1f,su, Plant Pathology, 5 (Bot. 10 cred.)

3. *Electives.* Enough elective credits should be selected to make up, with those listed in 1 and 2 above, from 15 to 18 credit hours each quarter. Full work for the year (3 quarters) consists of 51 credit hours.

Senior Year

1. *Special Courses—*

Agr. Educ. 41f,w-42w,s, Teaching, 6 (Agr. Educ. 131, Agron. 121, 122, 123, See Course description)
 Agr. Educ. 131,w,s, Methods in Teaching High-School Agriculture, 5, (Agr. Educ. 11)
 Agr. Educ. 151f,w-152w,s, Organization and Management, 6 (Agr. Educ. 68-69)
 Agron. 102f,w,su, Farm Management II: Organization, 2 (Agron. 1, Econ. 2, An. Husb. 6, or 8, Soils 1)
 Agron. 103w,s, Farm Management II: Operation, 3 (Agron. 102)
 Farm Eng. 7w, Farm Structures, 3 (Farm Eng. 3)
 Pl. Path. 6s, Plant Pest Control, (Pl. Path. 1, Ent. 3)
 Pl. Path. 9f,su, Weeds and Seed Testing, 3 (Bot. 10 cred.)
 Poultry Husb. 1f,w,s, Poultry, 3

AGRICULTURAL EDUCATION—MANUAL TRAINING

General Statement.—Students desiring to procure the state professional certificate will begin their specialization with the junior year. It would be desirable to consult the chief of the Department of Agricultural Education earlier so as to avoid any difficulties that may arise in the program of specialization.

Sophomore Year

An. Husb. 2f, Livestock Judging, 3 (An. Husb. 1)
 Vet. Med. 8s, Veterinary Studies, 5

Junior Year

Agr. Educ. 66w-69s, Home and School Gardening, 6
 Agr. Educ. 11f,w,s, Principles of Vocational Education, 3
 Agr. Educ. 21f,w, Vocational Education, 3, or Educ. 5w, American School, 3
 Agron. 11s, Farm Machinery, 3
 Agron. 121f, Cereal Crops, 3 (Agron. 1, Bot. 10 cred.)
 Agron. 122w, Corn and Potato Crops, 3 (Agron. 1, Bot. 10 cred.)
 Agron. 123s, Forage and Fiber Crops, 3 (Agron. 1, Bot. 10 cred.)
 Dy. Husb. 101f, Milk Production, 5 (Dy. Husb. 1)
 Ent. 3f, Elementary Economic Entomology, 3 (An. Biol. 10 cred.)
 Pl. Path. 1f,su, Plant Pathology, 5 (Bot. 10 cred.)

Senior Year

Agr. Educ. 41f,w-42w,s, Teaching, 6 (Agr. Educ. 131, Agron. 121, 122, 123, See course description)
 Agr. Educ. 131f,w,s, Methods in Teaching High School Agr., 5, (Agr. Educ. 11)
 Agr. Educ. 133, Methods and Organization of Manual Training for Vocational Agricultural Instructors, 3 (Agr. Educ. 11)
 Agr. Educ. 151f,w-152w,s, Organization and Management, 6 (Agr. Educ. 68-69)
 Agron. 102f,w,su, Farm Management II: Organization, 3 (Agron. 1, Ec. 3, An. Husb. 6 or 8, Soils 1)

Agron. 103w,s, Farm Mgt. II: Operation, 3 (Agron. 102)
 Farm Eng. 4w, Blacksmithing, 3, or Farm Eng. 12f,s, Farm Motors, 3
 Farm Eng. 5f, Carpentry
 Farm Eng. 7w, Farm Structures, 3 (Farm Eng. 3)
 Farm Eng. Advanced Wood Work or Advanced Drawing, 3

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|-----------------------------|---------|---|----------------------------|---|
| <i>Introductory Courses</i> | | | | |
| 11 | 3 | Principles of Vocational Education... | ¹ Jr., sr. | None |
| 21 | 3 | Vocational Education..... | ¹ Jr., sr. | None |
| 41 | 6 | Teaching..... | ¹ Sr. | 131, Agron. 5, 104, see course description |
| 53 | 3 | Consolidated Rural Schools..... | Sr. | 11 |
| 54 | 3 | Rural Community Leadership..... | Sr. | None |
| 63 | 3 | General Agriculture..... | All | None |
| 64 | 3 | General Agriculture..... | All | None |
| 68-69 | 6 | Home and School Gardening..... | ¹ Jr., sr. | None |
| 75 | 3 | Visual and Graphic Representation... | ¹ Jr., sr. | 11 |
| 76 | 3 | Advanced Visual and Graphic Representation..... | ¹ Sr. | 175 |
| <i>Advanced Courses</i> | | | | |
| 131 | 5 | Methods in Teaching High-School Agriculture..... | ¹ Sr. | 11 |
| 133 | 3 | Methods and Organization of Manual Training for Vocational Agriculture Instructors..... | ¹ Sr. | 11 |
| 151 | 6 | Organization and Management..... | ¹ Sr. | 11, 68 |
| 161 | 3 | Fundamentals of Agriculture..... | ¹ Jr., sr. | None |
| 162 | 3 | Fundamentals of Agriculture..... | ¹ Jr., sr. | None. |
| 171 | 3 | Extension Work..... | ¹ Sr. | None |
| 173 | 3 | History of Agriculture..... | ¹ Soph.,jr.,sr. | None |
| 191-192 | 2-4 | Seminar..... | Sr., grad. | |
| 201,202, 203 | 1-2 | Advanced Seminar..... | Grad. | |
| 221 | 3 | Graduate Problems..... | Grad. | |

¹ Offered only to those preparing to teach.

INTRODUCTORY COURSES

11. PRINCIPLES OF VOCATIONAL EDUCATION. The fundamental principles upon which education is based. Emphasis is placed on those phases which are most closely related to vocational education. ANKENEY, DYER.
21. VOCATIONAL EDUCATION. A short history of vocational education; the present status in Europe and United States; manual training and home arts in an educational system; place of agriculture in the public schools with special reference to Minnesota. MAYNE.
41. TEACHING. Observation of regular classes; interpretation of class practices; preparation of lesson plans and actual teaching of classes under careful supervision in recitation and laboratory; criticism and discussion of plans, methods, and results of student's teaching. Students are admitted to this course only when recommended by the

Faculty of the Division in which they are specializing and when accepted by the Department of Agricultural Education. ANKENY, FIELD.

53. CONSOLIDATED RURAL SCHOOLS. A consideration of building arrangements, selection of teachers, equipment, transportation, and other problems which principals will meet in the organization and management of consolidated rural schools from the viewpoint of special needs of rural life. DYER.
54. RURAL COMMUNITY LEADERSHIP. The associations, clubs, evening courses, festivities, fairs, playground activities, entertainments, and other features desirable in rural communities for educational, recreational, ethical, and aesthetic purposes. Means to organize the same about the school as a center. DYER.
63. GENERAL AGRICULTURE. For students specializing in such divisions as Agricultural Biochemistry, Economic Zoology, Plant Pathology, and in other colleges. A series of units by division chiefs and other agricultural specialists. STORM, MAYNE.
64. GENERAL AGRICULTURE. Continuation of Course 63. Credit is given for either course separately but there is no duplication of subject-matter and both should be taken to obtain a general knowledge of agriculture. STORM, MAYNE, ANKENY.
- 68-69. HOME AND SCHOOL GARDENING. Lectures and laboratory. The elements of horticulture as applied to high-school instruction, plant propagation, fruit growing, home gardening, school gardening, and the planning of home and school grounds. Same as Hort. 94. FIELD, BRIERLEY.
75. VISUAL AND GRAPHIC REPRESENTATION. Prepares persons for presenting materials by means of slides, films, charts, etc. Students assisted in assembling materials for their own use and in acquiring skill and technique in preparation and operation of various mediums. ANKENY.
76. ADVANCED VISUAL AND GRAPHIC REPRESENTATION. Continuation of 75. Further work in design and construction of charts and lantern slides. Special study of motion picture machines. Actual practice in effective use of visual aids in lecture and recitation. ANKENY.

ADVANCED COURSES

131. METHODS IN TEACHING HIGH-SCHOOL AGRICULTURE. Fundamental elements of method in teaching as related to teaching agriculture in high school. Organizing subject-matter of daily work; selection and plans for teaching. Supervised study. Special emphasis on the home project as method of instruction. FIELD.

133. METHODS AND ORGANIZATION OF MANUAL TRAINING FOR VOCATIONAL AGRICULTURAL INSTRUCTORS.
151. ORGANIZATION AND MANAGEMENT. Organization and management of work in secondary schools, particularly in Minnesota, with special reference to agricultural work, courses of study, programs, equipment, laboratory and class management, extension work, plots, and coördination of work. STORM, DYER.
161. FUNDAMENTALS OF AGRICULTURE. Essential for principals and superintendents of schools in which agriculture is taught, and valuable for students of other colleges whose time for agriculture is limited. Agricultural college experts will give work in their special fields. STORM, MAYNE.
162. FUNDAMENTALS OF AGRICULTURE. Continuation of Course 161. Credit is given for either course separately, but there is no duplication of subject-matter and both should be taken to obtain a fundamental knowledge of agriculture. STORM, MAYNE.
171. EXTENSION WORK. Federal, state, and local extension aims, organization. Assembling and use of extension data and equipment. Development of extension methods especially as applied to work in Minnesota. Designed especially for county agents and high-school instructors. STORM.
173. HISTORY OF AGRICULTURE. A history of agricultural progress with special reference to the greater movement and to sources from which modern agriculture has received its most valuable acquisitions.
-
- 191-192. SEMINAR FOR GRADUATE STUDENTS AND SENIORS SPECIALIZING IN AGRICULTURAL EDUCATION. Critical studies of important problems in agricultural education; opportunity for individual investigation and research; review and interpretation of current education literature. Weekly meetings throughout the year. STORM, FIELD.
- 201-202-203. ADVANCED SEMINAR. A departmental seminar devoted to an intensive, critical and constructive study of the broader administrative problems and policies in the field of agricultural education. Opportunity for independent investigation and research. STORM, FIELD.
221. GRADUATE PROBLEMS. Making investigations, gathering data, and formulating plans regarding agricultural education. STORM, FIELD.

DEPARTMENT OF HOME ECONOMICS EDUCATION

TEACHERS' COURSE IN HOME ECONOMICS

Junior Year

| | |
|-------------------|--|
| HE 23f,w | Nutrition 5 |
| HE 37f,s,su | Home Care of the Sick 3 |
| | Agric. Educ. 11, Elementary Educ. Psychol. 3 |
| | Educ. 5, The American School 3 |
| HE 108f,w,su | Nutrition 5 |
| | Econ. 3, Principles of Economics 5 |
| HE 42w,s,su | Special Methods of Teaching Home Economics 5 |
| HE 52f,w | Art History and Appreciation 3 |
| HE 40s | Child Training 3 |
| HE 53f,w,s | Advanced Design 4 |
| Elective. | 8 |

Senior Year

| | |
|-------------------|---|
| HE 103f,w,su | Dietetics 5 |
| HE 131f,w,s | Home Management; House Planning and Equipment 5 |
| HE 49f,w,s | Observation and Teaching 8 |
| HE 123f,w,s | Clothing Economics 3 |
| HE 34f,w,s,su | Home Management: Operation and Maintenance, Lect. 3 |
| HE 35f,w,s,su | Home Management: Operation and Maintenance, Lab. 6 |
| HE 17f,w,s,su | Advanced Clothing Construction 3 |
| HE 45w | Home Economics Survey 2 |
| Elective. | 2 |

TEACHERS' COURSE IN RELATED ART

Freshman Year

GROUP A

| | | |
|---------------------------|----|-------------------------------------|
| Rhetoric 1, 2, 3. | 9 | Freshman Lectures |
| Animal Biology. | 9 | Phys. Educ. 11, Preliminary Hygiene |
| Chemistry. | 10 | Elementary Physical Training |

All students must register for Group A and enough additional work from Group B to make a total of not more than fifteen credit hours and not less than twelve credit hours each quarter. Courses in Group B not completed in the freshman year must be taken in the sophomore year, except as other wise indicated.

GROUP B

Chemistry—Those students entering college without high-school chemistry must take the 3 quarter course of 12 credits. Those presenting high-school chemistry for entrance should register for the two quarter course.

| |
|------------------------------|
| Farm Eng. 5 |
| H.E. 3 Textiles 5 |
| H.E. 51 Drawing and Design 3 |
| H.E. 11 Garment Making 3 |

Sophomore Year

| | |
|------------------------------------|------------------------------|
| H.E. 21 Foods and Cookery 5 | Argumentation 11, 5 |
| H.E. 22 Food Economics 5 | Public Speaking 22, 5 |
| Physiol. 3 Human Physiology 5 | Elementary Bacteriology 1, 4 |
| Sociol. 1 General Sociology 3 | Psychology 3, 5 |
| Agr. Biochem. 3 Carbon Compounds 5 | Dressmaking 13, 5 |

Junior Year

| | |
|--|---|
| Art. Ed. 33, 34 Beginning Freehand Drawing 3 | Econ. 3 Principles of Economics |
| Art. Ed. 34 Advanced Freehand Drawing 3 | H.E. 33 Home Care of the Sick 3 |
| | Ag. Ed. Elementary Educational Psychology |

H.E. 52 Art History and Appreciation 3
 H.E. 53 Advanced Design 3
 H.E. 55 Decorative Needlework and other
 Crafts 2
 H.E. 57 Weaving and Other Crafts 2
 H.E. 17 Advanced Clothing Construction
 3
 H.E. 123 Clothing Economics 3

H.E. 42 Home Economics Education 5
 Ed. 5 The American School 3
 Electives 8

Senior Year

H.E. 32 Home Equipment 5
 Art. Ed. 40 Principles of Form and
 Color 3
 ——— Costume Design 3
 ——— Interior Design 3
 H.E. 43 Organization and Methods for
 Related Art Teaching 3

H.E. 18 Commercial Clothing Manu-
 facture 4
 H.E. 48 Observation and Teaching 8
 H.E. 19 Millinery 2
 H.E. 4 Advanced Textiles 3
 Electives 12

DEPARTMENT OF TRADE AND INDUSTRIAL EDUCATION

COURSES IN VOCATIONAL EDUCATION

The College of Education has recently organized a Department of Trade and Industrial Education, with a staff of instructors.

The Department of Trade and Industrial Education will offer courses throughout the year for men and women who wish to prepare to teach any of the various forms of vocational education. Advanced courses in Administration and Supervision of Vocational Education will be offered for those who wish to advance to supervisory or administrative positions.

Specific methods courses are outlined for the following groups of teachers: teachers of shop subjects; teachers of related technical subjects, as drawing, mathematics, and science; teachers of non-vocational subjects; teachers of part-time schools and classes which include the regular shop and related subjects teachers; teachers of commercial subjects and merchandising.

Full college credit leading to a degree will be granted those students who fulfill the usual entrance requirements.

Extension courses will be offered by this Department in cities where the group is large enough to justify offering the courses.

A bulletin will be issued later giving complete details as to courses, and will be sent if application is made to the Dean of the College of Education, University of Minnesota, Minneapolis, Minn.

SPECIAL CURRICULA

AMERICANIZATION TRAINING

Professors ALBERT E. JENKS, ARTHUR J. TODD; Associate Professors LUTHER L. BERNARD, MANUEL C. ELMER, RAYMOND G. MOLEY; Assistant Professors ROSS L. FINNEY, OSCAR W. JUNEK, GUSTAV A. LUNDQUIST; Instructor BERTHA W. CLARK; Assistant BRUCE L. MELVIN.

GENERAL STATEMENT

Students registering in this course will be required to have completed the freshman and sophomore years in the course in Americanization training or their equivalent in the College of Science, Literature, and the Arts. All students desiring the University teachers' certificate for Americanization work will be required to secure credits in the following courses in the College of Education. Such students must also be registered in the College of Education.

JUNIOR STUDIES

| REQUIRED | CREDITS | ELECTIVES |
|--|---------|---|
| American People—Older Immigrants from Europe..... | 3 | Supervised Americanization Work |
| Newer Immigrants from Europe..... | 3 | Immigrant Woman |
| Americanisms and Assimilation..... | 3 | Race Leaders and Programs |
| Americanization Methodology..... | 3 | Labor Problems |
| Methods of Americanization..... | 3 | Statistics |
| 126. Organization of Americanization Work | 3 | Elementary Dietetics |
| Ed. 3. Social Aspects of Educ..... | 3 | Housing Problems |
| Ed. 55, Educational Psychology..... | 3 | Home Management |
| Ed. 11, Technique of Teaching..... | 3 | Social Psychology |
| or | | History of Education |
| Am. 127 Technique of Teaching Adults.... | 3 | Physical Anthropology |
| General Economics..... | 5, 5 | Political and Social Ethics (10 |
| Aliens' Viewpoints Special Lectures by Race Leaders..... | 0 | credits in any Social Science, Jr., sr., grad.) |

SENIOR STUDIES

| REQUIRED | CREDITS | ELECTIVE |
|---|---------|------------------------------------|
| American Negro..... | 3 | Negro and Immigrant Adjustments |
| Government and the Immigrant..... | 3 | Slavic Culture |
| Race Leaders and Programs (If not previously elected)..... | 3, 3 | Slavic Oral Language |
| Ed. 15, Practice Teaching..... | 5 | Genetics and Eugenics |
| or substitute | | Social Statistics |
| Supervised Americanization Work..... | 3, 3, 3 | Seminars in Intensive Race Studies |
| Teachers' Course..... | | Socialism |
| or substitute | | Child Welfare |
| Am. 125 Methods of Americanization Work.. | 3 | Philippine Peoples |
| | | Municipal Problems |
| | | Mental Diagnosis |

Students desiring a special certificate to teach in home workers' classes will be required to take the following additional courses:

| No. | Credits | Title | Offered to | Prerequisites |
|-----|---------|----------------------------|-----------------|---------------------------------|
| 70w | 3 | Food Preparation..... | Soph., jr., sr. | Gen. Zool; Gen. Chem., desired. |
| 71s | 3 | Elementary Dietetics..... | Soph., jr., sr. | 70 Gen. Physiol. desired |
| 72f | 3 | Home Management Problems.. | Jr., sr. | 70, 71, Gen. Econ. or parallel |

Students desiring to secure a special certificate to teach in the evening classes or community center classes will be required to take the following additional courses:

FOR MEN

See courses in Physical Education for Men

FOR WOMEN

See Courses in Physical Education for Women

Vocational Education, Civics

TEACHERS OF DEFECTIVES

GENERAL STATEMENT

In coöperation with the State Department of Education, the College of Education has outlined a four years' course for the training of teachers of special children in Minnesota schools. According to the tentative program thus far outlined it will be possible for students to pursue this course and at the same time secure the degree at this University. It is further intended that a number of the courses from this four-year program will be offered in the summer.

Students who have had two years' teaching experience in the public schools and who carry a group of these courses satisfactorily during the current year will be given a provisional certificate by the State Department, enabling them to qualify for teaching in special classes.

OUTLINE OF COURSES

Freshman Year

| Department | Number of course | Title of course | Quarter credits |
|---------------------------|------------------|-----------------|-----------------|
| Rhetoric..... | A-B-C | Elementary..... | 15 |
| Animal Biol. or Chem..... | 1f-2w | Elementary..... | 10 |
| Modern Language..... | | | 5 or 10 |
| Electives..... | | | 5 or 10 |

45

Sophomore Year

| | | | |
|-------------------------|----------|--|----|
| Psychology..... | 1f-2w-3s | General Psychol..... | 9 |
| Sociology..... | 1 | Introductory..... | 5 |
| Sociology..... | 6 | Social Reform Move..... | 3 |
| Physiology..... | 1-2-3 | Elementary..... | 3 |
| Art Education..... | 37f | Elem. Weaving, Basketry and Allied Crafts..... | 2 |
| Art Education..... | 47s | Metal Work..... | 2 |
| Physical Education..... | 32-33 | Organization of Games and Folk Dancing..... | 0 |
| An. Biol. or Chem..... | 1f-2w | Elementary..... | 10 |
| Electives..... | | | 11 |

45

Junior Year

| Department | Number of course | Title of Course | Quarter credits |
|-----------------|------------------|---|-----------------|
| Psychology..... | 101f-102w | Experimental..... | 6 |
| Sociology..... | 52 | Treatment of Dependents and Defectives..... | 3 |
| Sociology..... | 54 | Child Welfare..... | 3 |
| Sociology..... | 53 | Treatment of Delinquents..... | 3 |
| Education..... | 1f,w,s | History of Education..... | 5 |
| Education..... | 11f,w,s | Technique of Teaching..... | 3 |
| Education..... | 3f,w,s | Social Aspects of Education..... | 3 |
| Education..... | 106f-107w-108s | Adv. Educational Psychol..... | 9 |
| Education..... | | Course of Study for Subnormal Children..... | 3 |
| Electives..... | | | 5 |

45

Senior Year

| Department | Number of course | Title of course | Quarter credits |
|-----------------------|------------------|--|-----------------|
| Education..... | 111 | Educational Diagnosis..... | 3 |
| Education..... | 134-135-136 | Mental Tests and Mental Diagnosis of School Children..... | 6 |
| Education..... | 149-150-151 | Psycho-Educational Clinic..... | 6 |
| Education..... | 15f,w,s | Practice Teaching of Subnormal Children..... | 5 |
| Education..... | 160f-161w-162 | Theory of Supervision..... | 9 |
| Education..... | | Study of Speech Defects..... | 3 |
| Education..... | | Lectures on Organization and Adminis. of Classes for Subnormal Children..... | 00 |
| Human Physiology..... | 137 | Foods and Practical Dietetics..... | 2 |
| Electives..... | | | 15 |
| | | | 47 |

HIGH-SCHOOL RURAL TRAINING

Assistant Professor GEORGINA L. LOMMEN.

REQUIREMENTS OF THE DEPARTMENT

1. *For admission.*—(1) Two years of rural teaching experience; (2) Advanced diploma from a state normal school. For exceptions, see statement, page 21.

2. *For recommendation for state endorsement.*—For explanation, see page 21 of this bulletin.

Students who complete the following course will be eligible for recommendation for the endorsement of the State Department of Education as teachers of high-school rural-training departments.

In the following course, Education is selected as a major. The two minors recommended are English and Sociology. The Education courses are all required, but previous training, experience, and needs of the student may modify his choice of minors and of other electives. Normal school graduates are credited with the History of Education and Introductory Psychology, consequently these courses are not included in the following outline.

PRESCRIBED COURSE FOR HIGH-SCHOOL RURAL-TRAINING TEACHERS

Junior Year

| FIRST QUARTER | | SECOND QUARTER | |
|--|---------|------------------------------------|---------|
| | Credits | | Credits |
| Education: | | Education: | |
| 3. Social Aspects of Education..... | 3 | 55. Educational Psychology..... | 3 |
| Sociology: | | Sociology: | |
| General Introduction to Sociology..... | 5 | Rural Community..... | 3 |
| English: | | English: | |
| 1. General Survey..... | 5 | Survey..... | 5 |
| Elective..... | 3 | Elective: | |
| | | Agriculture or Home Economics..... | 5 |
| Total..... | 16 | Total..... | 16 |

THIRD QUARTER

Credits

| | |
|---------------------------|---|
| Education: | |
| Group 1. Departmental | |
| Methods Reading, En- | |
| glish, Related Arts..... | 3 |
| Sociology: | |
| Social Reform Movements.. | 3 |
| English: | |
| Survey | 5 |
| Elective: | |
| Agriculture or Home Eco- | |
| nomics..... | 5 |
| Total..... | |
| 16 | |

Senior Year

FIRST QUARTER

Credits

| | |
|---------------------------|---|
| Education: | |
| Technique of Teaching.... | 3 |
| Industrial Education..... | 3 |
| Sociology: | |
| Social Progress..... | 3 |
| Elective..... | 6 |
| Total..... | |
| 15 | |

SECOND QUARTER

Credits

| | |
|--------------------------|---|
| Education: | |
| Group II, Departmental | |
| Methods Geography, His- | |
| tory, and Arithmetic.... | 3 |
| Sociology: | |
| Child Welfare..... | 3 |
| Education: | |
| School Supervision..... | 3 |
| Elective..... | 6 |
| Total..... | |
| 15 | |

THIRD QUARTER

Credits

| | |
|-----------------------------|----|
| Education: | |
| Observation and Practice in | |
| Normal Training Depart- | |
| ments..... | 5 |
| Elective..... | 10 |
| Total..... | |
| 15 | |

MANUAL TRAINING

Instructor LYNNE E. STOCKWELL.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|-----|---------|-------------------------------------|------------|-----------------|
| 11s | | Teachers' Course in Wood Work for | | |
| | | Primary Grades..... | Jr., sr. | |
| 12w | 3 | Elementary Wood Work..... | Jr., sr. | |
| 13f | 3 | Organ. and Superv. of Manual Train- | | |
| | | ing..... | Sr. | |

11. TEACHERS' COURSE IN WOOD WORK FOR THE PRIMARY GRADES. STOCKWELL.

12. ELEMENTARY WOOD WORK. Uses and care of tools, tool processes, and uses and care of wood-working machinery. Special emphasis is placed upon methods of presenting the work to pupils. STOCKWELL.

13. ORGANIZATION AND SUPERVISION OF MANUAL TRAINING. History and aims of manual training, selection of equipment and supplies, courses of study, methods of presenting manual training to grade and high-school students, brief discussion of vocational education. STOCKWELL.

TEACHERS AND SUPERVISORS OF PHYSICAL EDUCATION

GENERAL STATEMENT

The special professional course offered by the College of Education is designed to prepare its graduates for the responsible direction of physical education activities in all their relationships, developmental, hygienic, and social.

Students desiring to specialize in physical education should consult the head of the Department of Physical Education as to their fitness to undertake the work. They should be without organic disease or serious functional disorder, should have a keen sense of rhythm, and should possess qualities of personality which will win the coöperation of others.

Since the curriculum includes certain freshman subjects it is desirable to elect the course on entrance to the University. (See also departmental statement on page 68.)

Freshman Year

| | |
|--|---------------|
| Rhetoric, English..... | 15 credits |
| Language..... | 10-15 credits |
| Chemistry, Elementary and Advanced General, and Qualitative..... | 10-12 credits |
| Elementary Physical Training, 3 periods..... | 0 credits |
| Major Sports, 2 periods..... | 0 credit |
| Preliminary Hygiene, 12 lectures..... | 0 credit |
| Elective..... | 3 credits |
| Total..... | 38-45 credits |

NOTE: If two or more units of high-school language are presented at entrance, and if the same language is pursued in the University, only ten credits will be required. If chemistry is presented at entrance the student may be excused from Elementary Chemistry and take Advanced General and Qualitative (10 credits).

With the time gained by either of these means the student can begin the work of the sophomore year.

For description of courses see Bulletin of College of Science, Literature, and the Arts, under the departmental headings.

Sophomore Year

| | |
|--|------------|
| Chemistry, Types of Carbon Compounds (1 qtr.)..... | 6 credits |
| History..... | 10 credits |
| Animal Biology..... | 10 credits |
| Comparative Anatomy..... | 5 credits |
| Human Anatomy..... | 5 credits |
| Psychology (3 qtrs.)..... | 9 credits |
| Technical Courses in Exercise, 5 periods a week..... | 0 credits |
| Total..... | 45 credits |

For description of courses see Bulletin of Science, Literature and the Arts, except; for Types of Carbon Compounds, see announcement of courses in Home Economics; Department of Agricultural Biochemistry; for Anatomy, see Bulletin of College of Medicine, Department of Anatomy, Course 1; to this will be added an extension of three hours for laboratory work.

Junior Year

| | |
|------------------------------------|------------|
| Physiology..... | 12 credits |
| Personal Hygiene..... | 2 credits |
| Kinesiology..... | 8 credits |
| History of Education..... | 5 credits |
| Educational Psychology..... | 3 credits |
| Physics..... | 5 credits |
| Nature and Function of Play..... | 2 credits |
| Laboratory Teaching..... | 2 credits |
| Technical Courses in Exercise..... | 6 credits |
| Total..... | 45 credits |

For description for Physiology, see Bulletin of College of Medicine, Physiology Course 103; for Educational Psychology and History of Education see pages 27 and 29 of this bulletin; for Physics see announcement of Courses in Home Economics, Department of Farm Engineering, course on Household Physics; for Personal Hygiene, Kinesiology, Nature and Function of Play, and Laboratory Teaching, see appended statement.

81. PERSONAL HYGIENE. Application of facts in physiology to healthful living; and to physical education. (To be given 1920-21.)
- 83-84. KINESIOLOGY. Lectures and recitations on anatomical mechanism of movements; rôle of joint motion, muscular action, gravity, leverage, inertia, internal resistance in the production and modification of gymnastic movements and their efforts. (To be given 1920-21.)
86. PLAY. The theories of its nature and functions. Play periods of childhood and adolescence. Development of playground and recreation movement. (To be given 1920-21.)
- 88-89-90. LABORATORY TEACHING. Lectures and quizzes on terminology, and technique of teaching. Practice in teaching within departmental groups.

Senior Year

| | |
|--|------------|
| Sociology..... | 5 credits |
| Social Aspects of Teaching..... | 3 credits |
| History of Physical Education..... | 1 credit |
| Technique of Teaching..... | 3 credits |
| Principles of Physical Education..... | 7 credits |
| Community Health Problems..... | 2 credits |
| Physical Examination..... | 2 credits |
| Physical Diagnosis and Symptomatology..... | 2 credits |
| First Aid..... | 1 credit |
| Remedial Gymnastics..... | 3 credits |
| Principles of Dancing and Relation to Music..... | 1 credit |
| Practical Conduct of Playground..... | 2 credits |
| Advanced Gymnastic Technique..... | 1 credit |
| Practice Teaching in Gymnastics..... | 2 credits |
| Dancing Technique..... | 2 credits |
| Practice Teaching in Dancing..... | 2 credits |
| Practice in Conducting Playground..... | 1 credit |
| Practice Teaching in Swimming..... | 1 credit |
| Practice Teaching in Major Sports..... | 2 credits |
| Electives..... | 2 credits |
| Total..... | 45 credits |

Recommended Electives for Students Entering with Advanced Standing

| | |
|----------------------------|--|
| American Government..... | 5 credits (Political Science 1) |
| Municipal Government..... | 5 credits (Political Science 5) |
| Voice Placing..... | 2 credits |
| Statistics..... | 5 credits (Economics 101) |
| School Sanitation..... | 3 credits (Educational Administration 141) |
| Hygiene of the Family..... | 3 credits (Phys. Education for Women 14) |
| Courses in Sociology..... | See Bulletin of Science, Literature, and the Arts. |

TEACHERS OF PHYSICAL EDUCATION, MINOR CERTIFICATE

This course is designed for students who are preparing to teach Physical Education as a secondary subject.

| No. | Title | Credits |
|-----------------------|--|---------|
| 1-2-3 ¹ | Elementary Physical Training..... | 0 |
| 4-5-6 ¹ | Intermediate Physical Training..... | 6 |
| 7-8-9 ¹ | Advanced Physical Training..... | 6 |
| 13 ¹ | Personal Hygiene..... | 3 |
| 43 ¹ | Sophomore Elementary Swimming..... | 0 |
| 16 | Anatomy and Kinesiology..... | 3 |
| 17 | Principles of Gymnastic Exercise..... | 3 |
| 18 | Teachers' Course in Play..... | 3 |
| 31-32-33 ¹ | Folk Dancing and Organized Games..... | 0 |
| 34-35-36 ¹ | Hockey, Basket-ball, and Baseball..... | 0 |
| Ed. 15 ² | Practice Teaching..... | 5 |
| Ed. 55 ² | Educational Psychology..... | 3 |
| Ed. 3 ² | Social Aspects of Teaching..... | 3 |
| Ed. 11 ² | Technique of Teaching..... | 3 |
| Ed. 1 ² | History of Education..... | 5 |
| Ed. 141 ² | School Sanitation and Public Health..... | 3 |

¹ For description of these courses see Bulletin of College of Science, Literature, and the Arts, Department of Physical Education for Women.

² For description of these courses see pages 26 to 34 of this bulletin.

PUBLIC SCHOOL MUSIC

Instructor THADDEUS P. GIDDINGS.

REQUIREMENTS OF THE DEPARTMENT

This program of work is open only to students in the College of Education.

| Course | <i>Junior Year</i> | | |
|-----------------------------------|----------------------------|---|---------------|
| | First Quarter | Second Quarter | Third Quarter |
| <i>Music</i> | | | |
| 14-15-16-Hist of Music..... | 3 or | 3 or | 3 or |
| 88-89-90-Ear Training..... | 1 | 1 | 1 |
| 45-46-47-Third-Yr. Pianoforte... | 4 | 4 | 4 |
| 75-76-77-Public School Music..... | 3 | 3 | 3 |
| <i>Education</i> | | | |
| 1-History of Education..... | 5 Ed. 55 Educ. Psychol. | 3 Ed. 3 Social Aspects or Ed. 11-Tech. of Teaching | 3 3 |
| Elective..... | 3 | 3 | 3 |

*Senior Year**Music*

| | | | |
|----------------------------------|------|------|------|
| 11-12-13-Analysis | 1 or | 1 or | 1 or |
| 20-21-22-Bach-Beethoven | 2 | 2 | 2 |
| 25-26-27-Ensemble | 1 | 1 | 1 |
| 48-49-50-Fourth-Yr. Pianoforte.. | 4 | 4 | 4 |
| 78-79-80-Adv. Public School Mu.. | 3 | 3 | 3 |
| Elective | | | |

TRAINING COURSE FOR HOME VISITORS AND VOCATIONAL ADVISERS

This course is intended to train teachers and social workers to act as interpreters between home and school. The course consists of both academic and field work. A special certificate will be given to those who complete the four-year course covered below. Variation from this course can be made only upon petition. A fifth year is outlined for graduate students who wish to do research work in this field.

The closest coöperation will exist between the College of Education and the Department of Attendance and Vocational Guidance in the public schools of Minneapolis, in which all candidates for a certificate will be expected to do a certain amount of field work. This field work will involve a study of the attendance department, census checks, follow-up plans, special case work, work history cards, employment certificate reports, absentee reports, home visiting, and the observation of the work of the life career classes of the public schools.

First Year

REQUIRED

Rhetoric, science, and history to meet the requirements of the Arts College.

ADVISED ELECTIVES

Courses open to freshman in languages, history, science or mathematics

Second Year

Courses open to sophomores which are required for a teacher's certificate in the chosen subject

General Psychology
General Economics
General Introduction to Sociology

Industries and Commerce of the United States.

American Municipal Administration.
State and Local Government
Social Reform Movements
Public Speaking
Philosophy, including Ethics

Third Year

REQUIRED

Courses necessary to carry on work leading to a teachers' certificate in the chosen subject, and the prescribed work in education which include:

History of Education
Technique of Teaching
Elem. Educational Psychology
Social Aspects of Education
Statistics
Mental Tests
Treatment of Defectives and Dependents
Treatment of Delinquents

ADVISED ELECTIVES

Child Welfare
Trade Unionism and Allied Problems.

Fourth Year

Courses necessary to carry on work leading to a teachers' diploma in the chosen subject. Also the required practice teaching; this practice teaching will include work with a high-school life career class.

Industrial Education
Technique of Family Treatment
Social Statistics and Social Surveys
Labor Problems
School Curricula
The Theory and Practice of Vocational Guidance

School Organization and Administration

Educational Diagnosis
Foreign Schools
Occupations Open to Women

Graduate Year

REQUIRED

Methods in Educational Research
Seminar in Social and Industrial Investigation
Wages
Vocational Guidance

ADVISED ELECTIVES

Psycho-Educational Clinic
Educational Administration
Charitable Administration
Finance and Publicity
Mental Diagnosis of School Children
Seminar in Educational Psychology

AMERICANIZATION AND ANTHROPOLOGY

Professors ALBERT ERNEST JENKS, ARTHUR J. TODD; Associate Professors LUTHER L. BERNARD, MANUEL C. ELMER, RAYMOND G. MOLEY; Assistant Professors ROSS L. FINNEY, OSCAR W. JUNEK, GUSTAV A. LUNDQUIST; Instructor BERTHA W. CLARK; Assistant BRUCE L. MELVIN.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|--------------|---------|--|-----------------|-------------------------------------|
| 1 | 5 | Introd. to Anthropology..... | Soph., jr., sr. | None |
| 2 | 3 | General Anthropology..... | Soph., jr., sr. | 1 |
| 5 | 3 | General Immigration..... | Soph., jr., sr. | 1 |
| 41-42 | 2 | Slavic Language..... | Jr., sr., grad. | 3 courses incl. 140 |
| *112 | 3 | The American Negro..... | Jr., sr., grad. | 2 courses |
| *113 | 3 | The Older Immigrants..... | Jr., sr., grad. | 2 courses |
| *114 | 3 | The Newer Immigrants..... | Jr., sr., grad. | 3 courses |
| *115 | 3 | Americanisms and Assimilation..... | Jr., sr., grad. | 3 courses |
| *117 | 2 | The Immigrant Woman..... | Jr., sr., grad. | 3 courses |
| *118 | 3 | Government and the Immigrant..... | Jr., sr., grad. | Course 5 or 10 cr. in Pol. Sci. |
| *125 | 3 | Methods of Americanization..... | Jr., sr., grad. | 3 courses |
| *126 | 3 | Organization and Americanization Work..... | Jr., sr., grad. | 125 |
| *127 | 3 | Technique of Teaching Adults..... | Jr., sr., grad. | 125 |
| *131-132-133 | 3 | Supervised Americanization Work... | Jr., sr., grad. | 3 courses including 125 or parallel |
| *137-139 | 3 | Race Leaders and Programs..... | Jr., sr., grad. | 113 and 114 |
| *140 | 2 | Slavic Culture..... | Jr., sr., grad. | 3 courses inc. 114 |

For description of the above courses see Bulletin of the College of Science, Literature, and the Arts.

ANATOMY

Professor RICHARD E. SCAMMON.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|-----------------|---------|--|------------|---------------------------|
| 135f,su | 2 | Physical Development of Childhood..... | | Zool. 1-2 or equivalent |
| 160f-162s-163su | Ar | Seminar in Growth of Children..... | | Anatomy 135 or equivalent |

135f,su. PHYSICAL DEVELOPMENT OF CHILDHOOD. Growth and physical development of the child from birth to maturity, with special reference to methods of determining physiologic age and to periods of physical growth recognizable in childhood. Lectures, study of illustrative material, selected readings. Physiology and reading knowledge of French or German highly desirable. SCAMMON.

160f-162s-163su. SEMINAR IN GROWTH OF CHILDREN. A study with graphic analysis of data on physical development of children of school age. SCAMMON.

ANIMAL BIOLOGY

Professors HENRY F. NACHTRIEB, HAL DOWNEY, JOHN B. JOHNSTON, WILLIAM A. RILEY, THOMAS S. ROBERTS, CHARLES P. SIGERFOOS; Associate Professor ELMER J. LUND; Assistant Professors ROYAL N. CHAPMAN, OSCAR W. OESTLUND; Instructors GEORGE D. ALLEN, ADOLPH RINGOEN; Teaching Fellow ROLAND F. HUSSEY; Assistants JOHN A. CEDERSTROM, EMILY H. PAYNE.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|-----------------|---------|--|----------------------|--|
| 1f-2w | | | | |
| 1w-2s | 10† | General Zoology..... | All | None |
| 1s, second half | | | | |
| 4su or 2w or 2s | | | | |
| 5f-6w-7s | 12† | General Zoology..... | Pre-medical | None |
| 9f-10w | 10† | Histology and Embryology..... | Soph., jr., sr. | 1, 2 or 4su |
| 9s | 5 | Histology and Embryology..... | Soph., jr., sr. | 1, 2 or 4su |
| 17f-18w | 10† | General Physiology..... | Soph., jr., sr. | 15 cr. in An. Biol. or 10 cr. in An. Biol. and 10 cr. in Chemistry or Physics. |
| 23s | 5 | Morphogenesis and Behavior of Organisms..... | Soph., jr., sr. | Same as for 17, 18 |
| 27s | 5 | Comp. Anatomy..... | Fr., soph., jr., sr. | 1, 2 |
| 33s | 5 | Gen. Embryology..... | Fr., soph., jr., sr. | 1, 2 |
| 37f-38w | 10† | Gen. Entomology..... | Soph., jr., sr. | 1, 2 or 4su |
| 43s | 5 | Intro. Entomology..... | Fr., soph., jr., sr. | 1, 2 |
| 43su | 5 | Intro. Entomology..... | Fr., soph., jr., sr. | 1, 2 |
| 44f | 5 | Animal Parasites..... | Soph., jr., sr. | 1, 2 or 4su |
| 44s | 5 | Animal Parasites..... | Soph., jr., sr. | 1, 2 |
| 45w | 3 | Insects and Disease..... | Soph., jr., sr. | 1, 2 or 4su and 44 |

| No. | Credits | Title | Offered to | Prereq. courses |
|------------|---------------------|--|----------------------|--|
| 45su | 3 | Insects and Disease..... | Soph., jr., sr. | 1, 2 and 44 |
| 59s | 5 | General Ecology..... | Fr., soph., jr., sr. | 1, 2 or 4su |
| *102w | 3 | Morphol. Invertebrates..... | Jr., sr. | 1, 2 and 5 other cr. in An. Biol. |
| *107s | 3 | Protozoology..... | Jr., sr..... | 1, 2 and 5 other cr. in An. Biol. |
| *109f-110w | 10† | General Physiology..... | Jr., sr., grad. | 20 cr. in An. Biol. |
| 114w-115s | 6† | Ornithology..... | Jr., sr. | 1, 2 |
| *117f- | | | | |
| 118w-119s | 9† | Ecology of Insects..... | Jr., sr., grad. | 1, 2 and 43s or 43su |
| *124su | 5 | Advanced Ecology..... | Sr., grad. | 117, 118, 119 |
| *125f- | | | | |
| 126w-127s | 9 | Advanced Entomology..... | Jr., sr., grad. | 1, 2; 37-38 or 43 |
| *130w | 3 | Biology Aphididae..... | Jr., sr., grad. | 1, 2 and 10 addi- tional cr. in An. Biol. |
| *139s | 5 | Histol. and Development of In- sects..... | Soph., jr., sr. | 1, 2 and 37, 38 or 43 |
| *139su | 5 | Histol. and Development of In- sects..... | Soph., jr., sr. | 1, 2 and 37-38 |
| *149f- | | | | |
| 150w-151s | 9 | Blood Vertebrates..... | Sr., grad. | Hist., Embryology, Reading knowl- edge French, German |
| *153f- | | | | |
| 154w-155s | 9 | Hematology..... | Jr., sr. | Hist., Embryology |
| *162w | 3 | Genetics and Eugenics..... | Jr., sr., grad. | 1, 2 or Botany |
| *191s | 3 | History of Zoology..... | Jr., sr., grad. | 1, 2 |
| *197f- | | | | |
| 198w-199s | 9 or 12 | Problems..... | Sr., grad. | 1, 2 and special re- quirements |
| *200su | 6 or 12 10 or 20 | Problems..... | Sr., grad. | Same as for 197, 198, 199 |

For description of the above courses see the Bulletin of the College of Science, Literature, and the Arts.

ASTRONOMY

Professor FRANCIS P. LEAVENWORTH; Assistant Astronomer WILLIAM O. BEAL.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|-----------|---------|----------------------------------|-----------------|--|
| 7 | 3 | Navigation..... | All | Consult Dept. |
| 11 | 5 | Descriptive Astronomy..... | Soph., jr., sr. | None |
| 25 | 5 | Stellar Astronomy..... | Soph., jr., sr. | 11 |
| *51-52-53 | 9 | General Astronomy..... | Jr., sr. | 15 cr. in Math. includ. trig. or Phy. Sci. |
| *62 | 3 | Elements of Practical Astronomy. | Jr., sr. | Astr. 11 or 51 and 10 cr. in Math. including Trig. |
| *101- | | | | |
| 102-103 | 9 or 18 | Practical Astronomy..... | Jr., sr., grad. | Math. 50 |
| *140 | 3 | Method of Least Squares..... | Sr., grad. | Math. 51 |

All of the above courses carry credit in the College of Education. For description of these courses see Bulletin of the College of Science, Literature, and the Arts.

BACTERIOLOGY AND IMMUNOLOGY

Professor WINFORD P. LARSON; Assistant Professor ARTHUR T. HENRICI;
Instructor ANNE G. BENTON.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|-----------|---------|------------------------------|------------|-----------------|
| 6f,w,s,su | 3 | Elementary Bacteriology..... | All | None |

6f,w,s,su. ELEMENTARY BACTERIOLOGY. Lecture and laboratory course. Principles and technique of general bacteriology. Studies in the morphologic and biologic characters of common bacteria. Preparation of culture media. Disinfectants and disinfection. Bacteriology of water and food products. 80 hours. LARSON, BENTON.

BOTANY

Professors C. OTTO ROSENDAHL, ELIAS J. DURAND, LEE I. KNIGHT, JOSEPHINE E. TILDEN; Assistant Professors FREDERIC K. BUTTERS, WILLIAM S. COOPER, NED L. HUFF; Instructor; Teaching Fellows

REQUIREMENTS OF THE DEPARTMENT

For a teacher's certificate.—For a major recommendation, thirty credits in Botany as follows: Courses 1-2, 7, 52, and two of either 11, 12, 13, 17. The student must attain an average of at least one and one-half honor points per credit hour, in these courses. In addition ten credits in Animal Biology and Botany 61 are required.

For a minor recommendation, twenty credits in Botany including Courses 1-2 and 7. The student must attain an average of at least one and one-half honor points per credit hour. In addition Botany 61 is required and ten credits in Animal Biology are recommended.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|-----------------|---------|---------------------------------|-----------------|--------------------|
| 1f-2w† | 10 | General Botany..... | All | None |
| 7s | 5 | Taxonomy of Flowering Plants.. | All | 2 |
| 11f | 5 | Algae and Fungi..... | Soph., jr., sr. | 2 |
| 12w | 5 | Bryophytes and Pteridophytes... | Soph., jr., sr. | 2 |
| 13s | 5 | Angiosperms and Gymnosperms... | Soph., jr., sr. | 7 or 12 |
| 17w | 5 | Anatomy of Vascular Plants.... | Soph., jr., sr. | 2 |
| 51f | 3 | Histological Methods..... | Jr., sr. | 15 cr. |
| 52f | 5 | Plant Physiology..... | Jr., sr. | 15 cr. |
| 53w | 5 | Botany of Economic Plants.... | Jr., sr. | 15 cr. |
| 54s | 5 | Elementary Ecology..... | Jr., sr. | 52 |
| 61f,w,s | 5 | Teachers' Course..... | Jr., sr. | 20 cr. including 7 |
| *101f-102w-103s | 9 | Fungi..... | Jr., sr., grad. | 7 and 11 |
| *105s | 5 | Algae..... | Jr., sr., grad. | 11 |
| *107w | 5 | Bryophytes..... | Jr., sr., grad. | 7 and 12 |
| | | (Not offered in 1919-20) | | |
| *108s | 5 | Pteridophytes..... | Jr., sr., grad. | 7 and 12 |
| | | (Not offered in 1919-20) | | |
| *110s | 5 | Gymnosperms..... | Jr., sr., grad. | 7 and 13 |

† No credit is given in either quarter until the completion of Course 2.

| No. | Credits | Title | Offered to | Prereq. courses |
|-----------------|---------|--|-----------------|-------------------------------|
| *113f-114w-115s | 9 | Advanced Taxonomy..... | Jr., sr., grad. | 7 |
| *118w-119s | 6 | Cytology..... | Jr., sr., grad. | 51 |
| *123su | 3 | Algae: Blue-green..... | Jr., sr., grad. | 105 |
| *124s | 3 | Algae: Green..... | Jr., sr., grad. | 105 |
| *125s,su | 3 | Algae: Brown..... | Jr., sr., grad. | 105 |
| *126f | 3 | Algae: Red..... | Jr., sr., grad. | 105 |
| *131f | 5 | Field Ecology..... | Sr., grad. | 54 |
| *132w | 5 | Ecological Anatomy..... | Sr., grad. | 54 |
| *133s | 5 | Forest Geography of North America..... | Sr., grad. | 54 |
| *141f | 5 | Advanced Plant Physiology..... | Sr. grad. | 52 and Gen. Organic Chemistry |
| *142w | 5 | Advanced Plant Physiology..... | Sr., grad. | 52 and Gen. Organic Chemistry |
| *143s | 5 | Advanced Plant Physiology..... | Sr., grad. | 52 and Gen. Organic Chemistry |

Students entering college with a year of high-school botany satisfactory to the Department may be admitted directly into Course 2. All such must present to the Department, before registration, their high-school notebook and a statement from their teacher showing the amount and proficiency of their work.

For description of the above courses see Bulletin of the College of Science, Literature and the Arts.

CHEMISTRY

Professors LAUDER W. JONES, CHARLES F. SIDENER; Associate Professors WILLIAM H. HUNTER, FRANK H. MACDOUGALL, M. CANNON SNEED; Assistant Professors LILLIAN COHEN, ISAAC W. GEIGER, FRANK C. WHITMORE,; Instructors LAWRENCE M. HENDERSON, GUY H. WOOLLETT.

REQUIREMENTS OF THE DEPARTMENT

For a teacher's certificate, an average of at least one and one-half honor points for each credit hour in Courses 6-7-8 or 9-10, 12-13, 20 or 35-36, and 19.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|--|---------|----------------------------------|-----------------|-------------------------------|
| <i>Division of General Inorganic Chemistry</i> | | | | |
| 6-7-8 | 15† | General Inorganic Chem..... | All | None |
| 9-10 | 10† | General Inorganic Chem..... | All | Entrance cr. in Chem. |
| 12-13 | 5† | Qual. Chem. Analysis..... | Soph., jr., sr. | 6-7-8 or 9-10 |
| 19 | 3 | Teachers' Course..... | Jr., sr. | Gen. Chem. and Qual. Analysis |
| 101 | 2 | History of Chemistry..... | Sr. | 35-36 |
| 102 | 2 | Adv. Inorganic Preparations..... | Jr., sr. | 20-21 |
| 103 | 2 | Adv. Inorganic Chemistry..... | Jr., sr. | 35-36, 20-21 |
| 104 | 2 | Adv. Inorganic Chemistry..... | Jr., sr. | 35-36, 20-21 |
| 20 | 5 | Quantitative Analysis..... | Soph., jr., sr. | 12-13 |
| 21 | 5 | Quant. Anal. Cont. Course..... | Soph., jr., sr. | 20 |
| 123 | 3 | Iron and Steel Analysis..... | Jr., sr. | 21 |
| 124 | 3 | Mineral and Ore Analysis..... | Jr., sr. | 21 |

† All quarters must be completed before credit is given for any one quarter.

| No. | Credits | Title | Offered to | Prereq. courses |
|--------------------------------------|-----------------|---|-----------------|---|
| 125 | 2 or 3 | Special Problems in Quant. Anal. | Sr. | 21 |
| 126 | 1 or 2 | Sanitary Water Analysis..... | Sr. | 21 |
| <i>Division of Organic Chemistry</i> | | | | |
| 35-36 | 10† | Organic Chemistry..... | Soph., jr., sr. | 6-7-8 or 9-10 |
| 131 | 3 | Adv. Organic Chemistry..... | Jr., sr. | 35-36 |
| 132 | 3 | Adv. Organic Chemistry..... | Jr., sr. | 131 |
| 137-138 | Ar | Adv. Organ. Chem. Lab. ¹ | Jr., sr. | 35-36 |
| 139 | Ar | Adv. Org. Chem. Lab. ¹ | Jr., sr. | 137-138 |
| 141-142-143 | 9, 12 or 15† | Physical Chemistry..... | Jr., sr., grad. | 2 yrs. col. Chem. 1 yr. col. Physic. |
| 145 | 2 | Radiochemistry..... (Not offered in 1919-20) | Sr., grad. | 2 yrs. col. Chem. |
| 146 | 2 | Radiochemistry Lab..... | Sr., grad. | 145 |
| 147-148-149 | 9 | Adv. Physical Chem..... | Sr., grad. | 141-142-143 and Calculus |
| 151-152-153 | Ar | Adv. Physical Chem. Lab..... | Sr., grad. | To accompany 147-148 |

† Two quarters must be completed before credit is given for any one quarter.

¹ Open only to those students who are taking or have taken as lecture course in Advanced Organic Chemistry.

All of the above courses receive credit in the College of Education. For description see College of Science, Literature, and the Arts Bulletin.

COMPARATIVE PHILOLOGY

Professor FREDERICK KLAEBER; Assistant Professor SAMUEL KROESCH.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|--------------|---------|--|-----------------|-----------------|
| *101-102 | 4† | Science of Language..... | Jr., sr., grad. | See statement |
| *103 | 2 | Universal Language..... | Jr., sr., grad. | Same as for 101 |
| *105 | 2 | The Life of Words..... | Jr., sr., grad. | Same as for 101 |
| *141-142-143 | 6† | Historical Grammar of the Eng- lish Language..... | Jr., sr., grad. | See statement |
| *163 | 3 | Phonetics..... | Jr., sr., grad. | See statement |

† Course must be completed before credit is given for any one quarter.

All of the above courses carry credit in the College of Education. For description of courses, see Bulletin of the College of Science, Literature, and the Arts.

ECONOMICS

Professors WILLARD E. HOTCHKISS, JOHN H. GRAY, ROY G. BLAKEY, GEORGE W. DOWRIE, E. DANA DURAND; Professorial Lecturers J. FRANKLIN EBERSOLE,¹ JOHN H. SHERMAN; Associate Professors JOHN D. BLACK, WILLIAM W. CUMBERLAND; Assistant Professors Z. CLARK DICKINSON, CLARENCE L. HOLMES, J. HUGH JACKSON,¹ ALBERT C. JAMES, ROBERT C. LINE, HOWARD S. NOBLE, THOMAS H. SANDERS; Instructors JOSEPH E. CUMMINGS, HELEN HARRISON, VICTOR H. PELZ, J. WARREN STEHMAN.

¹ Absent on leave, 1919-20.

REQUIREMENTS OF THE DEPARTMENT

For *B.A. with Honors*, the general requirements; thirty-six credits in Economics, of which twenty-four shall be selected from advanced courses numbering 100 and above.

For *major recommendation for a teacher's certificate*, in commercial subjects; 36 quarter credits. Economics 1-2, 3-4, 25-6, and 18 credits from the following group: 11, 23, 95-6, 143-4, 161, 191; Geology 37.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|-----------------|---------|--|--------------------------|---|
| 1-2 | 10 | Intro. to Economic History..... | Fresh. | None |
| 3f-4w | 10 | Principles of Economics..... | Soph., jr., sr. | None |
| 3s-4f | 10 | Principles of Economics..... | Fresh., soph. | None |
| 5 ² | 5 | General Economics..... | Fresh., soph., jr. | None |
| 6 ² | 3 | Agricultural Economics..... | Soph., jr. | 5 |
| 7 ² | 5 | Principles of Economics..... | Soph., jr., sr. | None |
| 8-9-10 | 9 | Principles of Economics..... | See Engineering bulletin | |
| 11f-12w | 6 | Statistics..... | Jr., sr. | 3-4 or 5, 6, or 7 |
| 11s | 5 | Statistics..... | Soph. | 3-4 or 5, 6 or 7 |
| 15-16-17 | 9 | Economics Problems..... | See Engineering bulletin | |
| 18 ² | 5 | Problems in Agri. Economics.... | Soph., jr., sr. | 3-4 or 5, 6 or 7 |
| 19 ² | 5 | Principles of Agricultural Marketing..... | Jr., sr. | 3-4 or 5, 6 or 7 |
| 20 | 5 | Problems in Rural Economics.... | Soph., jr., sr. | 3-4 or 5, 6, or 7 |
| 23 | 5 | Principles of Organization and Management..... | Soph., jr., sr. | 3-4 or 5, 6, or 7 |
| 25-6 | 8† | Principles of Accounting..... | Soph., jr., sr. | None |
| 41 | 3 | Financial History of U. S..... | Jr., sr. | 3-4 or 5, 6, or 7 |
| 51-52-53 | 9 | Business Law..... | Jr., sr. | 9 cr. in Econ. or Pol. Sci. |
| 54 | 3 | Corporation Finance..... | Jr., sr. | 3-4 or 5, 6, or 7 |
| 55 | 3 | Advanced Corporation Finance.. | Jr., sr. | 54 |
| 59 | 3 | Life Insurance..... | Jr., sr. | 3-4 |
| 60 | 3 | Fire Insurance..... | Jr., sr. | 3-4 |
| 61 | 3 | General Insurance..... | Jr., sr. | 3-4 |
| 76 | 3 | Commercial Policies..... | Jr., sr. | 3-4 |
| 77 | 3 | Foreign Trade..... | Jr., sr. | 76 |
| 81-82-83 | 9 | Economic History of Europe and U. S. 1750 to present. (Not given 1919-20)..... | Jr., sr. | 15 cr. Econ. or Hist. or Econ. and Hist. combined |
| 85 | 5 | Principles of Marketing..... | Jr., sr. | 3-4 or 5, 6, or 7 |
| 86f | 3 | Advertising and Selling..... | Sr. | 3-4 or 5, 6, or 7 |
| 86w | 3 | Advertising and Selling..... | Jr., sr. | 19 or 85 |
| 88 | 3 | Retail Marketing..... | Jr., sr. | 85 |
| 95-6 | 6 | Office Management..... | Jr., sr. | 3-4 or 5, 6, or 7 and 25-6 |
| 97 | 2 | Seminar in Secretarial Adminis. | Sr. | 95-6 |
| 100-101-102 | 9 | Economic History of Europe 1300-1750..... | Jr., sr., grad. | 15 cr. Econ. or Hist. or Econ. and Hist. combined |
| 103-104 | 6 | Value and Distribution..... | Jr., sr., grad. | 33-4 or 5, 6, or 7 |

² Given at University Farm.

† Students in the College of Agriculture, Forestry, and Home Economics may receive credit at the close of the first quarter.

| No. | Credits | Title | Offered to | Prereq. courses |
|--------------------------|---------|---|-----------------|--------------------|
| 105 | 3 | History of Economic Ideas..... | Jr., sr., grad. | 103-4 |
| 107 ¹ | 5 | Land Tenure..... | Jr., sr. | 3-4 or 5, 6, or 7 |
| 108 ¹ | 5 | Agricultural Statistics..... | Jr., sr. | 11 |
| 109 ¹ | 5 | Economics of Consumption..... | Jr., sr. | 3-4 or 5, 6, or 7 |
| 110 ¹ | 5 | Farm Marketing Problems..... | Jr., sr. | 19 |
| 112 | 3 | Advanced Statistics (Not given 1919-20) | | |
| 116-117-118 ¹ | 9 | Advanced Agricultural Econ..... | Sr. | 15 credits |
| 119-120-121 ¹ | 9 | Seminar in Agri. Economics..... | Sr. | 20 credits |
| 126-127-128 ¹ | 9 | Special Research Problems in Agri. Econ..... | Sr., grad. | 15 credits |
| 131 | 3 | Cost Accounting..... | Jr., sr., grad. | 25-6 |
| 132-133 | 6 | Industrial Accounting..... | Jr., sr., grad. | 131 |
| 134-135-136 | 9 | Auditing..... | Jr., sr., grad. | 25-6 |
| 137-138-139 | 9 | Accounting Practice and Proce- dure..... | Jr., sr., grad. | 25-6 |
| 143-144 | 10 | Money and Banking..... | Jr., sr., grad. | 3-4 or 5, 6 |
| 145 | 3 | International Exchange..... | Jr., sr., grad. | 143-4 |
| 146 | 3 | Investments..... | Jr., sr., grad. | 3-4 or 5, 6 |
| 147 | 3 | Bank Administration..... | Jr., sr., grad. | 143-4 |
| 149 | 3 | Business Cycles..... | Jr., sr., grad. | 143-4, 146 |
| 150 | 3 | Farm Finance..... | Jr., sr., grad. | 3-4 or 5, 6, or 7 |
| 153 | 3 | Modern Business Corporation.. | Jr., sr., grad. | 54 |
| 154 | 3 | Public Utilities..... | Jr., sr., grad. | 54 |
| 155 | 3 | Business and Government..... | Sr., grad. | 3-4 or 5, 6 |
| 156-157-158 | 6 | Seminar in Business Policy..... | Sr., grad. | 3-4, 23 |
| 160 | 3 | Economic Motives..... | Jr., sr., grad. | 3-4, Psyc. 1-2 |
| 161 | 3 | Labor Problems..... | Jr., sr., grad. | 3-4 or 5, 6 |
| 162 | 3 | Trade Unionism..... | Jr., sr., grad. | 161 |
| 164 | . | Police Power..... | See Pol. Sci. | |
| 165 | . | Law of Labor..... | See Pol. Sci. | |
| 167 | 3 | Industrial Relations..... | Sr., grad. | 23 |
| 169 | 3 | Labor and Reform Movements.. | Jr., sr., grad. | 161 |
| 173 | 3 | Railway Problems..... | Jr., sr., grad. | 54 |
| 191-192 | 6 | Public Finance..... | Jr., sr., grad. | 3-4 or 5, 6 |
| 193 | 3 | State and Local Taxation..... | Jr., sr., grad. | 191-2 |
| 195-196-197 | 6 | Seminar in Business Finance.... | Sr., grad. | 18 cr. incl. 143-4 |
| 210-211-212 | 6 | Seminar in Economic History... | Grad. | |
| 259-260 | 4 | Seminar in Corporation and Trust Problems..... | Grad. | 18 credits |
| 261-262-263 | 6 | Seminar for Graduates Exclusively | Grad. | |

¹ Given at the University Farm.

For description of the above courses see the Bulletin of the College of Science, Literature, and the Arts.

ENGLISH, RHETORIC, AND PUBLIC SPEAKING

Chairman for English, ELMER E. STOLL; Chairman for Rhetoric and Public Speaking, JOSEPH M. THOMAS.

Professors CARLETON BROWN,¹ RICHARD BURTON, FREDERICK KLAEBER, ELMER E. STOLL, JOSEPH M. THOMAS; Associate Professors JOSEPH W. BEACH, CECIL A. MOORE, FRANK M. RARIG; Assistant Professors DANIEL FORD, CYRIL A. HERRICK, JAMES T. HILLHOUSE, CHARLES W.

¹Absent on leave, 1919-20.

NICHOLS, GEORGE N. NORTHROP, ANNA H. PHELAN, MARTIN B. RUUD, HELEN A. WHITNEY; Professorial Lecturer NATHANIEL E. GRIFFIN; Instructors CECIL C. BEAN, ELIZABETH HAWTHORN, LEWIS B. HESSLER, SIGURD B. HUSTVEDT, ELIZABETH JACKSON, CHARLES F. LINDSLEY, WINSLOW H. LOVELAND, THOMAS R. MATHER, STANLEY RYPINS, HOWARD T. VIETS; Assistants MARY ELLEN CHASE, FRANCES KELLEY.

REQUIREMENTS OF THE DEPARTMENT

For B.A. with Honors in English, the general requirements; thirty-six credits in English, a reading knowledge of French, German, Italian, Greek, or Latin, and a final year's work in seminar for which a sequence shall have been specially arranged.

For B.A. with Honors in Rhetoric, the general requirements, a reading knowledge of either Latin, French, or German; at least twenty-four credits in starred courses in Rhetoric, including Course 201-202-203.

For a teacher's certificate in English.

- a. English as the major subject of teaching:

English 1-2-3, 4, 6 or 8, and 27; Rhetoric 1-2-3, either 11-12-13 or 15-16-17, and 41-42-43.

- b. English as the minor subject of teaching:

English 1-2-3, and 4; Rhetoric 1-2-3, and either 11-12-13 or 15-16-17.

In order to be recommended, a student must secure an average of at least one and one-half honor points for each credit hour of all the work taken in English and Rhetoric.

For a teacher's certificate in Public Speaking, a student must satisfy the Department that he is actively interested in some phase of public speaking either as a member of a literary or debating society, or as a participant in a contest or dramatic performance, or as a lecturer; must have the approval of the Department; and must complete the following courses: Rhetoric 1-2-3, 11-12-13 or 15-16-17, 41-42-43, and nine additional hours in Public Speaking.

COURSES IN ENGLISH

| No. | Credits | Title | Offered to | Prereq. courses |
|--------------------|---------|---|-----------------|-----------------------|
| A-B-C | 15 | Freshman English..... | All | None |
| 1-2-3 ¹ | 9 | General Survey of English Literature..... | Soph., jr., sr. | Rhet. 1-2-3 See note. |
| 4 ² | 4 | Old English..... | Jr., sr. | 1-2-3 See note |
| 6 ² | 4 | Chaucer..... | Jr., sr. | 1-2-3 |
| 8 ² | 4 | Shakespeare..... | Jr., sr. | 1-2-3 See note |
| 27 | 2 | History of the English Language | Jr., sr. | 1-2-3, 4 |
| 40 ³ | 3 | Bible as Literature..... | Soph., jr., sr. | 1-2-3 |
| *51 | 4 | Spenser..... | Jr., sr. | 1-2-3 |
| *53 | 4 | Seventeenth Century Lyrists.... | Jr., sr. | 1-2-3 |
| *54 | 4 | American Literature..... | Jr., sr. | 1-2-3 |
| *58-59 | 6† | Nineteenth Century Prose..... | Jr., sr. | 1-2-3 |
| *64 | 4 | Bacon..... | Jr., sr. | 1-2-3 |

† Both quarters must be completed before credit is given.

¹ This course will not be given after 1919-20.

² These courses may be taken at the same time with English 1-2-3.

³ This course may be taken at the same time with English 11.

| No. | Credits | Title | Offered to | Prereq. courses |
|-------------------|---------|----------------------------------|-----------------|--|
| *66 | 4 | English Novel..... | Jr., sr. | 1-2-3 |
| *103 | 4 | Beowulf..... | Jr., sr., grad. | 1-2-3, 4 and 4 credits below 10 |
| *105-106 | 6† | Eighteenth Century Poetry..... | Jr., sr., grad. | 1-2-3 and eight cr. in courses below 10. |
| *110 | 4 | Romantic Movement..... | Sr., grad. | 1-2-3, and eight credits in courses below 10. |
| *111-112 | 6† | Seventeenth Century Prose..... | Sr., grad. | 1-2-3, and eight credits in courses below 10. |
| *129 | 4 | Modern Drama..... | Sr., grad. | 1-2-3, and four credits in courses below 10. |
| *136 ^a | 4 | Advanced Shakespeare..... | Jr., sr., grad. | 1-2-3, and four credits in courses below 10. See note. |
| *140 ^b | 4 | Advanced Chaucer..... | Jr., sr., grad. | 1-2-3, and four credits in courses below 10. See note. |
| *141-142-143 | 6† | Historical Grammar of Eng. Lang. | Sr., grad. | 1-2-3, and four credits in courses below 10. |
| *146-147 | 6† | Metrical Romances..... | Jr., sr., grad. | 1-2-3, and four credits in courses below 10. |

† This course must be completed in order to secure credit for any quarter.

^a This course may be taken by students completing 8 with a grade of B.

^b This course may be taken by students completing 6 with a grade of B.

COURSES IN RHETORIC

| No. | Credits | Title | Offered to | Prereq. courses |
|---------------------------|---------|---|-----------------|----------------------|
| A-B-C | 15 | Freshman English..... | All | None |
| 4-5-6 | 9 | Composition for Technical Students..... | All | None |
| 11-12-13 | 9 | Exposition, Description, Narration..... | Soph., jr., sr. | 1-2-3, or 4-5-6 |
| 15-16-17 | 9 | Exposition and Argument..... | Soph., jr., sr. | 1-2-3 or 4-5-6 |
| 31 | 3 | Technical Writing..... | Soph., jr., sr. | 4-5-6 |
| *100-101 ¹ | 4 | Versification..... | Jr., sr., grad. | See note |
| *103-104-105 | 9 | Studies in Structure and Style... | Jr., sr., grad. | 11-12-13 or 15-16-17 |
| *107 ² | 4 | Imitative Writing..... | Jr., sr., grad. | See note |
| *109-110 ² | 6† | Short-Story Writing..... | Jr., sr., grad. | See note |
| *111-112-113 | 9 | Essay Writing..... | Jr., sr., grad. | 11-12-13 or 15-16-17 |
| *115-116-117 ³ | 9 | Dramatic Technique..... | Jr., sr., grad. | See note |
| *119-120-121 ⁴ | 9 | Seminar in Writing..... | Sr., grad. | See note |
| *201-202-203 ⁵ | 9 | Graduate Seminar..... | Sr., grad. | See note |

¹ Open to those who have taken 11-12-13 or 15-16-17 and have taken or are taking nine hours in the historical study of English poetry.

² Open to those who have taken 11-12-13 or 15-16-17 and have received a grade of A. or B. in at least two quarters.

³ Open to those who have taken 11-12-13 and have taken or are taking English 129.

⁴ Open with special permission to seniors and graduates. Prerequisites: Courses 1-2-3, 11-12-13, and nine additional credits in Rhetoric.

⁵ Open to graduates and to seniors taking the Honor Course. Prerequisites: Courses 1-2-3, 11-12-13 or 15-16-17, and nine additional credits in Rhetoric.

COURSES IN PUBLIC SPEAKING

| No. | Credits | Title | Offered to | Prereq. courses |
|------------------------|---------|--|-----------------|-----------------|
| 41-42-43 | 9 or 15 | General Course in Public Speaking | Soph., jr., sr. | 1-2-3 or 4-5-6 |
| *55-56-57 | 9 | Argumentation and Debating . . . | Jr., sr. | 41-42-43 |
| *81-82-83 | 9 | Interpretative Reading | Jr., sr. | 41-42-43 |
| *85-86-87 | 9 | Advanced Public Speaking | Jr., sr. | 41-42-43 |
| *91-92-93 ¹ | 9 | Play Production | Sr. | See note |
| *97 ² | 3 | Intercollegiate Debate and Oratory | Jr., sr. | See note |

¹ Open to those who have had Public Speaking 81-82-83 and who have taken or are taking English 129 and 136.

² Open to juniors and seniors who are awarded places on the intercollegiate debating squad, or are chosen to represent the University in the Northern Oratorical League contest.

GEOLOGY AND GEOGRAPHY

Professors WILLIAM H. EMMONS, FRANK F. GROUT, CLINTON R. STAUFER; Assistant Professors THOMAS M. BRODERICK, A. WALFRED JOHNSTON, CHESSLEY J. POSEY, TERENCE T. QUIRKE; Instructor CARL O. DUNBAR.

REQUIREMENTS OF THE DEPARTMENT

For a teacher's certificate in Geography.—Major recommendation; twenty-eight credits as follows: (a) ten credits from 29 or 1, 37, (b) 36, 55, and one other regional course required; (c) the remaining credits from 34, 39, 116, 118, 119, 5, 27.

Minor recommendation: nineteen credits—(a) ten credits from 29 or 1, 30, 37; (b) 36, 55, and one other regional course required.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|----------------|-------------|---|-----------------|--|
| 1-2† | 10 | General Geology | Soph., jr., sr. | None |
| 4 ¹ | 5 | Geology of Minnesota | Soph., jr., sr. | 1 |
| *5-6† | 6 | Economic Geology | Jr., sr. | 2 |
| 7-8 | 2 | General Geology Laboratory . . . | Soph., jr., sr. | Supports 1-2 |
| *11-12-13 | 9 | Index Fossils of North America.. | Jr., sr. | 2 |
| 15 | 1 (or more) | Minerals and Rocks | Jr., sr. | 1 or 29 |
| 19 | 5 | Elements of Paleontology | Soph., jr., sr. | 1 |
| 21-2† | 10 | Essentials of Mineralogy | Soph., jr., sr. | Some course in chemistry |
| 23-24-25† | 9 | Elements of Mineralogy | Soph., jr., sr. | Some course in chemistry |
| 27 | 1 | Outlines of Mineralogy | Jr., sr. | None |
| 29 | 5 | General Physiography | Soph., jr., sr. | None |
| 30 | 5 | Principles of Geography | Soph., jr., sr. | None; 1 or 29 desirable |
| 34 | 3 | Meteorology | Soph., jr., sr. | 1 or 29 |
| *36 | 3 | Geography of North America . . . | Jr., sr., grad. | 10 credits from 1 or 29, 30, 34, 37, 5 |
| 37 | 5 | Economic and Commercial Geography | Fr., soph., jr. | None |

† All quarters must be completed before credit is given for any one quarter.

¹ Not offered in 1919-20.

| No. | Credits | Title | Offered to | Prereq. courses |
|--------------|---------|--|-----------------|--|
| *39 | 3 | Geographic Influences..... | Jr., sr. | 10 credits from 1 or 29, 30, 34, 37, 5; 36 desirable |
| *55 | 3 | Teachers' Course in Geography.. | Jr., sr., grad. | A regional geog- raphy course and the antecedents thereto |
| *57-58-59 | 9 | Paleontology..... | Jr., sr. | 2 |
| *61 | 3 | Physical Mineralogy..... | Jr., sr. | 22 or 25 |
| *65 | 3 | Crystallography..... | Jr., sr. | 22 or 25 |
| *85 | 6 | Field Work in Northern Minne- sota..... | Jr., sr. | 2 |
| *105 | 3 | Elements of Rock Study..... | Jr., sr., grad. | 22 or 25 |
| *106 | 3 | Petrography..... | Jr., sr., grad. | 105 |
| *107-108-109 | 9 | Paleontologic Practice..... | Jr., sr., grad. | 59 |
| *111 | 3 | Ore Deposits..... | Sr., grad. | 2, 105 |
| *112 | 3 | Advanced Economic Geology... | Sr., grad. | 111 |
| *113 | 3 | Problems in Ore Deposits..... | Sr., grad.. | 112 |
| *116 | 3 | Geography of South America... | Jr., sr., grad. | Same as for 36 |
| *118 | 3 | Geography of Europe..... | Jr., sr., grad. | Same as for 36 |
| *119 | 3 | Geography of Asia..... | Jr., sr., grad. | Same as for 36 |
| *124-125 | 6 | Structural and Metamorphic Ge- ology..... | Sr., grad. | 2, 105 |
| *131-132-133 | 9 | Advanced Petrology..... | Jr., sr., grad. | 106 |
| *137 | 3 | Testing Economic Minerals.... | Jr., sr., grad. | 2, 105 |
| *140-141 | 6 | Applied Petrography..... | Jr., sr., grad. | 131 |
| *144-145 | 6 | Const. and Inter. of Geologic Maps | Jr., sr., grad. | 2 |
| *150 | 10 | Field Geology (Black Hills).... | Jr., sr., grad. | See members of Dept. |
| *151-152-153 | 9 | Advanced General Geology..... | Jr., sr., grad. | 2 |

For description of courses see Bulletin of the College of Science, Literature, and the Arts.

GERMAN

Professor CARL SCHLENKER; Assistant Professors OSCAR C. BURKHARD, JAMES DAVIES, ALFRED E. KOENIG, SAMUEL KROESCH, WALTER R. MYERS.

REQUIREMENTS OF THE DEPARTMENT

For a teacher's certificate.—Minor recommendation, Courses 50-51-52, 53-54-55, 71. Major recommendation, Courses 50-51-52, 53-54-55, 71, 66, 67, 56-57-58, and three other starred credits.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|-----------|---------|----------------------|-----------------|----------------------------|
| *50-51-52 | 3† | Composition..... | Soph., jr., sr. | 11 or 14 See note below |
| *53-54-55 | 3† | Conversation..... | Soph., jr., sr. | 11 or 14 See note below |
| *56-57-58 | 6† | Essay Writing..... | Jr., sr. | 52 |
| *59-60-61 | 6† | Oral Diction..... | Jr., sr. | 55 |
| *62 | 3 | German Comedies..... | Soph., jr., sr. | 11 or 14 See note below |
| *63 | 3 | Modern Drama..... | Soph., jr., sr. | 11 or 14 See note below |

† All quarters indicated must be completed before credit is given.

| No. | Credits | Title | Offered to | Prereq. courses |
|--------------|---------|--------------------------------------|-----------------|---------------------------------------|
| *64 | 3 | Classic Drama | Soph., jr., sr. | 62 or 63 |
| *65 | 3 | Survey through Reformation | Jr., sr. | 6 starred credits |
| *66 | 3 | Survey 18th Century | Jr., sr. | 3 starred credits See note below. |
| *67 | 3 | Survey 19th Century | Jr., sr. | 3 starred credits See note below. |
| *71 | 3 | Teachers' Course | | 52 and 55 or 6 starred credits |
| *72-73 | 6 | Drama since 1880 | | 9 starred credits |
| *77 | 3 | Faust, Part I | | 6 starred credits See note below |
| *100-101-102 | 9† | Middle High German | Sr., grad. | 9 starred credits |
| *103 | 3 | Phonetics | Sr., grad. | 9 starred credits in modern langs. |
| *104-105-106 | 9† | History of German Language | Sr., grad. | 9 starred credits |
| *126-127-128 | 9† | Grillparzer | Sr., grad. | 9 starred credits |
| *150-151-152 | 9† | Novelle | Sr., grad. | 9 starred credits |
| *160-161-162 | 9† | Lyric | Sr., grad. | 9 starred credits |
| *225-226-227 | 9† | Literary Problems | Grad. Honors | |

† All quarters indicated must be completed before credit is given.

NOTE: Adjustments permitted, for the year 1919-20 only, on account of the changes in the curriculum.

Students with credit for Course 7-8-9 (old numbering), Prose and Poetry, may register for Courses 62, 63, 64.

Students with credit for Course 10-11-12 (old numbering), Drama, may register for Courses 65, 66, 77. They must not register for Courses 62, 63, 64.

Students with credit for Course 24-25-26 (old numbering), Elementary Composition may register for Course 50-51-52.

Students with credit for Course 27-28-29 (old numbering), Elementary Conversation, may register for Course 53-54-55.

All of the above courses carry credit in the College of Education. For description see Bulletin of the College of Science, Literature, and the Arts.

GREEK

Professor CHARLES A. SAVAGE.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|---|----------------|-----------------------------------|-----------------|----------------------------|
| 1-2-3 | 15† | First-Year Greek | All | None |
| 4-5-6 | 10 or 15 | History and Epic Poetry | All | 1-2-3 |
| *51 | 3 | Philosophy | Jr., sr. | 4-5, or 4-6, or 5-6 |
| *52 | 3 | Oratory | Jr., sr. | 4-5, or 4-6, or 5-6 |
| *53 | 3 | Dramatic Poetry | Jr., sr. | 51, or 52 |
| *101 | 3 | Lyric Poetry | Sr., grad. | 51 and 53, or 52 and 53 |
| *102 | 3 | Advanced Drama | Sr., grad. | 53 or 101 |
| *103 | 3 ¹ | Advanced Epic Poetry | Sr., grad. | 101 or 102 |
| *104 | 3 ¹ | New Testament | Jr., sr., grad. | 51 |
| <i>Courses open to all. No knowledge of Greek required.</i> | | | | |
| 58 | 2 | Greek Architecture | Jr., sr. | None |
| 59 | 2 | Sculpture | Jr., sr. | None |
| 60 | 2 | Sculpture (Advanced) | Jr., sr. | None |
| 61 | 2 | Drama | Jr., sr. | None |
| 62 | 2 | Literature and Life | Jr., sr. | None |
| 63 | 2 | Mythology | Jr., sr. | None |

† All quarters must be complete before credit is given for any one quarter.

¹ Courses 103 and 104 are offered alternately—103 in 1919-20.

All of the above courses carry credit in the College of Education. For description see Bulletin of the College of Science, Literature, and the Arts.

HISTORY

Professors GUY STANTON FORD, WILLIAM STEARNS DAVIS, NORMAN SCOTT BRIEN GRAS, WALLACE NOTESTEIN, ALBERT BEEBE WHITE; Associate Professors SOLON J. BUCK, AUGUST CHARLES KREY; Assistant Professors LESTER BURRELL SHIPPEE, MASON WHITING TYLER; Instructor GEORGE MALCOLM STEPHENSON.

REQUIREMENTS OF THE DEPARTMENT

For a teacher's certificate, major recommendation thirty-six credits, minor recommendation twenty credits. In addition the student must take History 56.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|------------------|---------|--|-----------------|----------------------------------|
| 1-2 | 10 | The Modern World 1648-1918... | All | None |
| 3-4 | 10 | English History 1066 to Present. | All | None |
| 5-6 | 10 | American History..... | Soph., jr., sr. | 10 credits |
| 7-8 | 10 | English History 1815-1918..... | Soph., jr., sr. | 10 credits |
| 9-10 | 10 | Introd. to Economic History.... | Soph., jr., sr. | 10 credits |
| 11-12-13 | 9 | Medieval History..... | See statement | None |
| 14 | 5 | Europe 1100-1648..... | Soph., jr., sr. | Hist. 1-2 |
| *56 | 3 | Teachers' Course..... | Seniors | See statement |
| *61 | 5 | Recent American History..... | Jr., sr., grad. | 15 cr. incl. 5-6 |
| *71 | 5 | Outlines of Greek History..... | Jr., sr., grad. | 15 credits |
| *101 | 3 | French Revolution..... | Jr., sr., grad. | 15 credits |
| *103 | 5 | Near East, Ancient..... | Jr., sr., grad. | 15 credits |
| *104 | 5 | The Near East, Modern..... | Jr., sr., grad. | 15 credits |
| *105 | 3 | Military History..... | See statement | |
| *107-108 | 8 | Europe 1848-1914..... | Jr., sr., grad. | 15 credits |
| *111 | 5 | European Background of American Immigration..... | Jr., sr., grad. | 15 credits |
| *112 | 5 | History of American Immigration | Jr., sr., grad. | 15 credits |
| *115-116-117 | 9 | Economic History 1300-1750.... | Jr., sr., grad. | See statement |
| *120-121 | 6 | English Backgrounds of American History..... | Jr., sr., grad. | 15 cr. or 10 cr. and Pol. Sci. 1 |
| *125 (Pol. Sci.) | 5 | American Diplomatic History... | Jr., sr., grad. | 10 cr. in Pol. Sci. or Hist. 5-6 |
| *133-134-135 | 9 | Ancient Civilization..... | Jr., sr., grad. | See statement |
| *141 | 3 | The West to 1815..... | Jr., sr., grad. | 15 cr. incl. 5-6 |
| *142 | 3 | The West 1815-1865..... | Jr., sr., grad. | 15 cr. incl. 5-6 |
| *153 | 5 | The West since 1865..... | Sr., grad. | 20 cr. incl. 5-6 |
| *155 | 5 | The United States 1850-65..... | Sr., grad. | 20 cr. incl. 5-6 |
| *157-158 | 10 | Selected Topics Modern European History..... | Sr., grad. | See statement |
| *162-163-164 | 9 | Selected Topics Medieval History | Sr., grad. | See statement |
| *177 | 5 | Anglo-German Relations..... | Sr., grad. | 20 credits |
| *183 | 5 | Stuart Period..... | Sr., grad. | 20 cr. incl. 3-4 |

For description of the above courses see Bulletin of the College, Science, Literature, and the Arts.

HUMAN PHYSIOLOGY

Professor ELIAS P. LYON

COURSES

| No. | Credits | Title | Offered to |
|-------|---------|-----------------------------|------------|
| 1,2,3 | | Physiology and Hygiene..... | Teachers |
| | | Lab. I,II,III S | |
| | | Lect. IV S | |

LATIN

Professor JOSEPH B. PIKE; Instructor MARIE B. DENEEN.

REQUIREMENTS OF THE DEPARTMENT

For a teacher's certificate.—Minor recommendation, Course 81; major recommendation, Course 81 and any one of Courses 121-135.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|------|---------|--------------------------------|-----------------|---|
| 1-2 | 10† | Beginning Latin..... | All | None |
| 3 | 5 | Caesar..... | All | 1 yr. Latin or Course 1-2 |
| 11 | 5 | Selections..... | All | 2 or 3 yrs. Latin or Course 1-3 |
| 12 | 5 | Selections..... | All | 2 or 3 yrs. Latin or Course 1-3 |
| 13 | 5 | Selection..... | All | 2 or 3 yrs. Latin or Course 1-3 |
| 21 | 5 | Livy..... | All | 4 yrs. Latin or any two of Courses 11-13 |
| 22 | 5 | Plautus and Terence..... | All | 4 yrs. Latin or any two of Courses 11-13 |
| 23 | 5 | Horace, Odes..... | All | 4 yrs. Latin or any two of Courses 11-13 |
| 33 | 5 | Horace, Satires..... | All | 4 yrs. Latin or any two of Courses 11-13 |
| *51 | 3 | Pliny's Letters..... | Soph., jr., sr. | Any two of Courses 21-33 or an equivalent |
| *52 | 3 | Apuleius, Short Stories..... | Soph., jr., sr. | Any two of Courses 21-33 or an equivalent |
| *53 | 3 | Suetonius, Selected Lives..... | Soph., jr., sr. | Any two of Courses 21-33 or an equivalent |
| 81 | 3 | Teachers' Course..... | Jr., sr. | Any two of Courses 51-53 or an equivalent |
| *121 | 3 | Advanced Vergil..... | Jr., sr., grad | Any two of Course 51-53 or an equivalent |
| *131 | 3 | Ovid..... | Jr., sr., grad | Any two of Courses 51-53 or an equivalent |
| *122 | 3 | Cicero's Letters..... | Jr., sr., grad. | Any two of Courses 51-53 or an equivalent |
| *132 | 3 | Seneca's Epistles..... | Jr., sr., grad. | Any two of Courses 51-53 or an equivalent |
| *123 | 3 | Medieval Latin..... | Jr., sr., grad. | Any two of Courses 51-53 or an equivalent |
| *133 | 3 | Petronius and Vulgar Latin... | Jr., sr., grad. | Any two of Courses 51-53 or an equivalent |

† Both quarters must be completed before credit is given for either one.

All of the above courses carry credit in the College of Education. For description, see Bulletin of Science, Literature, and the Arts.

MATHEMATICS

Associate Professor WILLIAM H. BUSSEY, Chairman of the Department; Professors GEORGE N. BAUER, DUNHAM JACKSON; Associate Professor ROYAL R. SHUMWAY; Assistant Professors RALPH M. BARTON, RAYMOND W. BRINK, WILLIAM L. HART, ANTHONY L. UNDERHILL; Instructors MINNA SCHICK, ELLA THORP, CHESTER H. YEATON.

REQUIREMENTS OF THE DEPARTMENT

For a teacher's certificate.—Minor recommendation, Courses 2, 6, 30, 50, 51, 54 together with Courses 1 and 16 unless they were taken in high school. For a major recommendation, eight credits in addition to the courses required for a minor recommendation.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|--------------|---------|---|------------|------------------------|
| 1 | 5 | Higher Algebra..... | All | 1 yr. Elem. Alg. |
| 2 | 5 | College Algebra..... | All | 1 or Prep. Higher Alg. |
| 6 | 5 | Trigonometry..... | All | 1 or Prep. Higher Alg. |
| 16 | 5 | Solid Geometry..... | All | 2 and 6 |
| 20 | 5 | Mathematics of Investment..... | All | 2 and 6 |
| 30 | 5 | Analytic Geometry..... | All | 2 and 6 |
| *50 | 5 | Calculus I..... | Jr., sr. | 30 |
| *51 | 5 | Calculus II..... | Jr., sr. | 50 |
| *52 | 5 | Calculus III..... | Jr., sr. | 51 |
| *54 | 5 | Teachers' Course..... | Jr., sr. | 50 |
| *62-63 | 6 | Theory of Equations..... | Jr., sr. | 50 |
| *70 | 3 | History of Elem. Math..... | Jr., sr. | 30 |
| *71 | 5 | Solid Analytic Geometry..... | Jr., sr. | 50 |
| *102-103-104 | 9 | Adv. Anal. and Synthetic Geometry.. | Jr., sr. | 50 |
| *106-107-108 | 9 | Adv. Calculus and Differential Equations..... | Jr., sr. | 51 |

Course in Functions of a Real Variable, Modern Higher Algebra, The Method of Least Squares, Projective Geometry and Differential Geometry, listed in the Graduate School Bulletin, are open to properly qualified juniors and seniors. For more information consult the Chairman of the Department of Mathematics.

For description of courses see the Bulletin of the College of Science, Literature, and the Arts.

MUSIC

Professor CARLYLE SCOTT; Assistant Professor DONALD FERGUSON; Instructors THADDEUS P. GIDDINGS, GEORGE FAIRCLOUGH, GERTRUDE HULL, HARRISON W. JOHNSON, GERTRUDE REEVES, CARL SCHEURER.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|-----------------------|---------|----------------------------|------------|-----------------|
| 1-2-3 | 9† | Harmony..... | Jr., sr. | None |
| 4-5-6 ¹ | 6† | Counterpoint..... | Jr., sr. | 1-2-3 |
| 7-8-9 ² | 0 | Ear Training..... | Soph. Mu. | 1-2-3 |
| | | | jr., sr. | |
| 10-11-12 ³ | 6 | Composition..... | Jr., sr. | 1-2-3 |
| 11-12-13 ¹ | 3 | Analysis..... | Jr., sr. | 1-2-3 |
| 14-15-16 | 9† | History of Music..... | Jr., sr. | None |
| 17-18-19 | 3† | Appreciation of Music..... | Jr., sr. | None |
| 20-21-22 | 6† | Bach and Beethoven..... | Jr., sr. | 14-15-16 |
| 25-26-27 ⁴ | 3 | Ensemble..... | Jr., sr. | |

¹Required of all Music students.

²Junior music students may be excused from 88-89-90 if they pass a satisfactory examination at the end of the sophomore year.

³Students must have the permission of the Head of the Department before registering.

⁴Required two periods with one credit.

† All quarters must be completed before credit is given for any one quarter.

| No. | Credits | Title | Offered to | Prereq. courses |
|-----------------------|---------|---------------------------------|------------|-----------------|
| 28-29-30 ³ | 6 | First-Year Organ..... | Fresh. Mu. | |
| 31-32-33 ³ | 6 | Second-Year Organ..... | Soph. Mu. | |
| 34-35-36 | 6 or 12 | Third-Year Organ..... | Jr. | |
| 37-38-39 | 6 or 12 | Fourth-Year Organ..... | Sr. | |
| 39-40-41 | 6 or 12 | First-Year Pianoforte..... | Fresh. Mu. | |
| 42-43-44 | 6 or 12 | Second-Year Pianoforte..... | Soph. Mu. | |
| 45-46-47 | 6 or 12 | Third-Year Pianoforte..... | Jr. | |
| 48-49-50 | 6 or 12 | Fourth-Year Pianoforte..... | Sr. | |
| 51-52-53 | 6 or 12 | First-Year Violin..... | Fresh. Mu. | |
| 54-55-56 | 6 or 12 | Second-Year Violin..... | Soph. Mu. | |
| 57-58-59 | 6 or 12 | Third-Year Violin..... | Jr. | |
| 60-61-62 | 6 or 12 | Fourth-Year Violin..... | Sr. | |
| 63-64-65 | 6 | First-Year Vocal Training..... | Fresh. Mu. | |
| 66-67-68 | 6 | Second-Year Vocal Training..... | Soph. Mu. | |
| 69-70-71 | 6 or 12 | Third-Year Vocal Training..... | Jr. | |
| 72-73-74 | 6 or 12 | Fourth-Year Vocal Training..... | Sr. | |
| 75-76-77 | 9† | Public School Music..... | Jr., sr. | |
| 78-79-80 ¹ | 9† | Adv. Public Music..... | Sr. | 75-76-77 |
| 81-82-83 | 9† | Normal Piano..... | Jr., sr. | |
| 84-85-86 | 9† | Adv. Normal Piano..... | Sr. | 81-82-83 |
| 88-89-90 ² | 0 | Ear Training..... | Jr., Mu. | 7-8-9 |
| | | | jr., sr. | |
| 91-92-93 | 3 | Orchestra..... | Jr., sr. | |
| 94-95-96 | 6 or 12 | Other Orchestral Inst. | Jr., sr. | |
| 97-98-99 | 3 | University Choir..... | Jr., sr. | |

¹ Required of all Music students.

² Junior music students may be excused from 88-89-90 if they pass a satisfactory examination at the end of the sophomore year.

³ Students must have the permission of the Head of the Department before registering.

† All quarters must be completed before credit is given for any one quarter.

For description of the above courses, see Bulletin of the College of Science, Literature, and the Arts.

PHILOSOPHY

Professors NORMAN WILDE, DAVID F. SWENSON; Assistant Professor RUPERT C. LODGE.

REQUIREMENTS OF THE DEPARTMENT

For B.A. with Honors, besides the general requirements thirty-six credits in starred courses, including one of the following: 120, 124, 135, 147, 151-2-3, 161-2-3. Nine credits in Psychology will be accepted as pre-requisites in Philosophy, except where otherwise stated.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|-------|---------|------------------------------|-----------------|--------------------------------------|
| 1 | 5 | Problems of Philosophy..... | Soph., jr., sr. | None |
| 2 | 5 | Logic..... | All | None |
| 3 | 5 | Ethics..... | Soph., jr., sr. | None |
| 10 | 2 | Science and Religion..... | Soph., jr., sr. | 10 cr. in Phil. or Psychol. or Biol. |
| 20-21 | 6 | Present-Day Philosophy..... | Jr., sr. | 10 credits |
| *55 | 3 | Esthetics..... | Jr., sr. | 10 credits |
| *63 | 3 | Development of Religion..... | Jr., sr. | 10 credits |
| *100 | 3 | Philosophy of Religion..... | Jr., sr., grad. | 10 credits Phil. |
| *105 | 3 | Critical Idealism..... | Jr., sr., grad. | 10 credits Phil. |

| No. | Credits | Title | Offered to | Prereq. courses |
|--------------|---------|----------------------------------|-----------------|------------------------------|
| *108-109 | 6 | History of Ethics..... | Jr., sr., grad. | 10 in any social science |
| *113-114-115 | 9 | History of Philosophy..... | Jr., sr., grad. | 10 credits |
| *120 | 3 | Scandinavian Philosophy..... | Jr., sr., grad. | 10 credits |
| *124-125 | 6 | Political and Social Ethics..... | Jr., sr., grad. | 10 cr. in any social science |
| *133 | 3 | Philosophy of Plato..... | Jr., sr., grad. | 10 credits |

All of the above courses carry credit in the College of Education. For description see Bulletin of the College of Science, Literature, and the Arts.

PHYSICAL EDUCATION

FOR MEN

Director LOUIS J. COOKE; Assistant Director WILLIAM K. FOSTER; Instructors D. C. MITCHELL, CARL B. ROEMER, PERCY C. GLIDDEN; Assistants KARL P. BUSWELL, HARRY GOLDIE.

GENERAL STATEMENT

The purpose of the Department is to provide all men of the University opportunity for exercise in order to maintain and build up their general health. It also provides special training for the correction of physical defects and functional derangements.

A physical examination is required of all new matriculants, and of all others using the Department privileges, at the beginning of the year and as often during their college courses as their physical condition may indicate. Students taking the required work in Physical Education are examined also at the close of the year. A study of these records shows a marked improvement in the standard of health of the average student during his college course.

The gymnasium, swimming pool, and baths are open to all students of the University, who are free to use the apparatus and to pursue a course in physical training under the supervision of the Director and his assistants.

Those students, taking the required course in Physical Education, who can not swim, must make a reasonable effort, as determined by the department, to pass the swimming and life-saving requirements, and will be assigned special hours for instruction.

| No. | Credits | Title | Offered to | Prereq. courses |
|-----------|---------|----------------------------|-----------------|-----------------|
| 1f | None | Personal Hygiene..... | Fr. | None |
| 1f-2w-3s | None | Gymnasium..... | Fr. | None |
| 1f-2w-3s | None | Swimming..... | Fr. | None |
| 2w-3s | None | Boxing..... | Fr. | None |
| 1f-2w-3s | None | Intramural Athletics..... | All | None |
| 1f-2w-3s | None | Corrective Gymnastics..... | All | None |
| 1f-2w-3s† | 2 | Advanced Leaders..... | Soph., jr., sr. | Arrange |
| 1f-2w-3s | None | Intermed. Swimming..... | All | Arrange |
| 1f-2w-3s | None | Advanced Swimming..... | All | Arrange |
| 2w-3s | None | Wrestling..... | All | Arrange |

† No credit until a year's work is completed.

For description of above courses, see Bulletin of the College of Science, Literature, and the Arts.

PHYSICAL EDUCATION

FOR WOMEN

Professor J. ANNA NORRIS; Assistant Professor MAY S. KISSOCK; Instructors GERTRUDE M. BAKER, HELEN A. BARR, VALERIA G. LADD; GERTRUDE B. SCHILL, ALICE H. TOLG.

GENERAL STATEMENT

This Department aims primarily to promote the health of the women students. It gives physical examination and advice to all on entrance; plans systematically to keep in close touch with them during their first two years in college; conducts yearly consultations with, and examines when necessary, all upper-class students; gives courses in hygiene; organizes physical work to meet the varying needs and physical tastes of students; coöperates closely with the Woman's Athletic Association in encouraging and organizing athletic sports; holds regular office hours for the purpose of consultation with all students who desire its advice.

Work in this Department is required of all newly entering students (See Courses 1-2-3 and 11), of all sophomores in the Arts College (See "Sophomore" courses; sophomores who cannot swim must register for 43 on entrance), and of all students permitted, for reasons connected with their physical condition, to carry less than the minimum number of credit hours. Physical examinations or consultations required annually of all students.

Elective classes arranged in gymnastics, dancing, swimming, field hockey, basket-ball, baseball and other organized games.

For a special four-year professional course designed to prepare graduates for the responsible direction of physical education activities see page 46.

For a teacher's certificate, minor recommendation, see page 48.

Nine credits is the maximum number that can be gained by taking courses in exercise (Courses 4-5-6, 7-8-9); only one of these courses may be taken for credit in a semester.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|--------------------|---------|---|------------------------------|---|
| 1-2-3 ¹ | 0 | Elementary Phys. Train..... | Required of all new students | None |
| 4-5-6 ² | 4½ | Intermed. Phys. Training..... | Jr., sr. | Equiv. of 1-2-3, 52, 53, Permission of director |
| 7-8-9 ³ | 4½ | Advanced Phys. Training..... | Sr. | 4-5-6, Permission of director |
| 11 | 0 | Preliminary Hygiene..... | Required of all new students | None |
| 13 | 3 | Personal Hygiene..... | Soph., jr., sr. | Anim. Biol. 1-2 |
| 14 | 3 | Hygiene of the Family..... (not given 1919-20) | Jr., sr. | Anim. Biol. 1-2, Phys. Ed. 13 or Med. 3 |

¹ 3, open to students who have not taken 1-2.

² 6, open to students who have not taken 4-5.

³ 9, open to students who have not taken 7-8.

| No. | Credits | Title | Offered to | Prereq. courses |
|----------|---------|---------------------------------------|---------------|--|
| 16 | 3 | Anatomy and Kinesiology | Seniors | Anim. Biol. 1-2 |
| 17 | 3 | Prin. of Gymnastic Exercise | Seniors | PE 4-5-6, 31-32-33, 34-35-36, 13, 16. |
| 18 | 3 | Teachers' Course in Play | Seniors | PE 4-5-6, 31-32-33, 34-35-36, 13. |
| 19-20-21 | 0 | Rhythmic Expression | Fr., jr., sr. | None |
| 31-32-33 | 0 | Folk Dancing and Org. Games | Fr., jr., sr. | None |
| 34-35-36 | 0 | Hockey, Basket and Baseball | Fr., jr., sr. | Permission of direc- tor |
| 45 | 0 | General Swimming | Fr., jr., sr. | None |
| 22-23-24 | 0 | Sophomore Rhythmic Expression . . | Soph. | PE 1-2-3 |
| 37f,s | 0 | Sophomore Organized Games | Soph. | PE 1-2-3 |
| 38w | 0 | Sophomore Folk Dancing | Soph. | PE 1-2-3 |
| 40 | 0 | Sophomore Major Sports | Soph. | PE 1-2-3 |
| 43 | 0 | Sophomore Elementary Swim | Soph. | PE 1-2-3 |
| 44 | 0 | Sophomore Advanced Swim | Soph. | PE 1-2-3 |
| 52-53w | 0 | Sophomore Physical Training | Soph. | PE 1-2-3 |

Any course in exercise may be taken any quarter by obtaining permission of Department.

All of the above courses receive credit in the College of Education.

For description see College of Science, Literature, and the Arts bulletin.

16. ANATOMY AND KINESIOLOGY. Anatomy of bones, joints, and muscles as it applies to muscular exercise. Study of gymnastic positions and movements from the standpoint of anatomy.
17. PRINCIPLES OF GYMNASTIC EXERCISE. A study of the aims, purposes, and methods of physical education and the arrangement and progression of gymnastic exercises; technique of teaching and practice teaching with the class group.
18. TEACHER'S COURSE IN PLAY. A study of the various play theories and play periods of childhood and adolescence, also lectures, discussions, and actual practice in the building, care, and administration of playgrounds and the conduct of play.

PHYSICS

Professors HENRY A. ERIKSON, Chairman, W. FRANCIS G. SWANN, ANTHONY ZELNY; Associate Professors LOUIS W. MCKEEHAN, JOHN T. TATE; Professorial Lecturer LOUALLEN F. MILLER.

REQUIREMENTS OF THE DEPARTMENT

For recommendation for a teacher's certificate, twenty quarter credits including Course 90.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|-----|---------|-------------------------------------|------------|------------------|
| 21 | 4 | Elements of Mechanics | All | Trigonometry |
| 22 | 1 | Elements of Mechanics Lab | All | 21 or Reg. in 21 |
| 31 | 3 | Acoustics | All | None |
| 41 | 4 | Sound and Heat | All | 21 |

| No. | Credits | Title | Offered to | Prereq. courses |
|-----|---------|-----------------------------------|------------|------------------------|
| 42 | 1 | Sound and Heat Lab..... | All | 22, 41, or Reg. in 41 |
| 51 | 4 | Light..... | All | 21 |
| 52 | 1 | Light Laboratory..... | All | 22, 51 or Reg. in 51 |
| 61 | 4 | Magnetism and Electricity..... | All | 21 |
| 62 | 1 | Magnetism and Electricity Lab.... | All | 22, 61, or Reg. in 61 |
| 90 | 3 | Teachers' Course..... | Jr., sr. | 20 credits in Physics. |

For description of courses see Bulletin of the College of Science, Literature, and the Arts.

POLITICAL SCIENCE

Professors CEPHAS D. ALLIN, JEREMIAH S. YOUNG; Associate Professors ROBERT E. CUSHMAN, RAYMOND MOLEY; Assistant Professors WILLIAM ANDERSON, QUINCY WRIGHT; Instructor ALBERT J. LOBB.

REQUIREMENTS OF THE DEPARTMENT

For B.A. with Honors, see general requirements.

For a teacher's certificate in Government, at least sixteen credits in Political Science including American Government, State and Local Government, and Government of Minnesota.

Professional Courses.—The attention of those who are preparing themselves for the public service is called to the special training courses outlined on page 72 of the Bulletin. Further information may be had from the Chairman of the Department.

Bureau of Government Research.—This bureau is organized to conduct and direct special investigations into practical political and administrative problems, national, state, and local. Dr. Raymond Moley will act as Director, but all members of the staff will take part in the work of the bureau. Advanced and graduate students are strongly urged to take advantage of its facilities.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|-----------------------------|---------|---|---|--|
| <i>Beginning Courses</i> | | | | |
| 1 | 5 | American Government..... | Soph., jr., sr., and fr., who have had 10 cr. in history | None |
| 3 | 5 | Comparative European Govern- ment..... | Soph., jr., sr., who have had 10 cr. in history | None |
| <i>Intermediate Courses</i> | | | | |
| 7 | 5 | State and Local Government... | Soph., jr., sr. | 1 |
| 11 | 5 | Municipal Government..... | Soph., jr., sr. | 1 |
| 15 | 5 | Introduction to Pol. Sci..... | Soph., jr., sr. | 1 or 3 |
| 21 | 5 | Colonial Government..... | Soph., jr., sr. | 1 or 3 |
| 31 | 5 | Political Parties..... | Soph., jr., sr. | 1 or 3 |
| *51-52-53 | 9 | Business Law..... | Jr., sr. | 10 cr. in Pol. Sci. or 10 cr. in Econ. or 5 cr. in each. |
| *58 | 5 | Elementary Law..... | Jr., sr. | 10 cr. in Pol. Sci. or 5 in Pol. Sci. and 5 in Sociol. |

| No. | Credits | Title | Offered to | Prereq. courses |
|----------------|---------|--|--|---|
| *111 | 3 | Government of Minnesota..... | Jr., sr., grad. | 1 and 7 or 11 or 31 |
| *115 | 3 | Municipal Problems..... | Jr., sr., grad. | 11 |
| *118 | 3 | Government and the Immigrant | Jr., sr., grad. | 10 cr. or Americanization 5 |
| *121-122 | 8 | International Law..... | Jr., sr., grad. | 10 cr. in Pol. Sci. or Hist. 107-108 |
| *125 | 5 | American Diplomatic History... | Jr., sr., grad. | 10 cr. in Pol. Sci. or History 5-6 |
| *127 | 5 | American Foreign Relations.... | Jr., sr., grad. | 121-122 or 125 |
| *131-132 | 6 | World Politics..... | Jr., sr., grad. | 10 cr. in Pol. Sci. including Course 3 or History 107-108 or History 81-82-83 |
| *135 | 3 | Contemporary Political Problems..... | Jr., sr., grad. | 10 cr. |
| *145 | 3 | Legislative Power and Methods. | | |
| *151-152 | 8 | Constitutional Law..... | Jr., sr., grad. | 15 cr. |
| *153 | 3 | National and State Administration..... | Jr., sr., grad. | 13 cr. |
| *155-156 | 5 | Comparative Administrative Law..... | Jr., sr., grad. | 15 cr. |
| *157 | 5 | Police Power..... | Jr., sr., grad. | 13 cr. in Pol. Sci. or Econ. or Soc. |
| *161 | 5 | Comparative Federal Government..... | Jr., sr., grad. | 13 cr. including one starred course |
| *165-166 | 6 | British Empire..... | Jr., sr., grad. | 13 cr. in Pol. Sci. or Hist. 7-8 or Hist. 81-2-3 |
| *167 | 3 | British Constitutional Law.... | Jr., sr., grad. | 165-6 |
| *171 | 3 | Municipal Corporations..... | Jr., sr., grad. | 15 cr. in Pol. Sci. including one starred course. |
| *173 | 3 | Law of Municipal Improvements..... | Jr., sr., grad. | 151-152 or 171 |
| *175 | 4 | Law of Labor..... | Jr., sr., grad. | 151-152 or 157, or Econ. 161 or 15 cr. in Econ. |
| *181 | 3 | Modern Political Thought..... | Jr., sr., grad. | 13 cr. including courses 15 or Philosophy 127 |
| *191-192-193 | 9 | Development of International Law..... | Sr., grad. | 121-122-123, or History 107-108 or History 159-160 |
| *Econ. 155 | 3 | Business and Government..... | Sr., grad. | Econ. 3-4 or 13 cr. in Pol. Sci. |
| *Econ. 191-192 | 6 | Public Finance..... | Jr., sr., grad. | Econ. 3-4 or 13 cr. in Pol. Sci. |
| *Econ. 193 | 3 | State and Local Taxation..... | Jr., sr., grad. | 191-192 |
| Hist. 7-8 | 10 | English History 1815-1918.... | Soph., jr., sr. | 10 cr. in History |
| *Hist. 177 | 5 | Anglo-German Relations, 1900-1914..... | Sr., grad. | 18 cr. in History |
| Civ.Eng. 53 | 3 | Municipal Engineering..... | Jr., sr. | 11 |
| *201-202-203 | 9 | Seminar in Public Law..... | Grad. and srs. with suitable preparation | |

| No. | Credits | Title | Offered to | Prereq. courses |
|--------------|---------|--|--|-----------------|
| *211-212-213 | 9 | Seminar in Modern Government and Political Theory... | Grad. and srs. with suitable preparation | |
| *221-222-223 | 9 | Seminar in Local Government and Administration..... | Grad. and srs. with suitable preparation | |

In addition to the courses in Political Science the attention of all students doing their major work in this field, or fitting themselves for teaching or other public service, is especially directed to the following courses in closely allied departments:

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|---------------|---------|--|-----------------|--|
| Econ. 11-12 | 6 | Statistics..... | Soph., jr., sr. | Econ. 3-4 |
| Econ. *76 | 3 | Commercial Policies..... | Jr., sr. | Econ. 3-4 |
| Econ. *105 | 3 | History of Economic Ideas..... | Jr., sr., grad. | Econ. 103-104 |
| Econ. *154 | 3 | Public Utilities..... | Jr., sr., grad. | Econ. 153 |
| Econ. *161 | 3 | Labor Problems..... | Jr., sr., grad. | Econ. 3-4 |
| Econ. *162 | 3 | Trade Unionism..... | Jr., sr., grad. | Econ. 161 |
| Econ. *167 | 3 | Industrial Relations..... | Sr., grad. | Econ. 3-4 |
| Educ. | | | | |
| *124-125-126 | 9 | Educational Admin..... | Sr. grad. | See statement |
| Hist. 5-6 | 10 | American History..... | Soph., jr., sr. | 10 cr. in Hist. |
| Hist 9-10 | 10 | Introduc. to Econ. History.... | Soph., jr., sr. | 10 cr. in Hist. |
| Hist. 61 | 5 | Recent American History..... | Jr., sr., grad. | 15 cr. in Hist. including 5-6 |
| Hist. 104 | 5 | The Near East..... | Jr., sr., grad. | 15 cr. in Hist. |
| Hist. 107-108 | 8 | Europe, 1848-1914..... | Jr., sr., grad. | 15 cr. in Hist. |
| Hist. 120-121 | 6 | English Backgrounds of American History..... | Jr., sr., grad. | 15 cr. in Hist. or 10 cr. and Pol. Sci. 1 |
| Hist. 157-158 | 10 | Selected topics in Modern European History..... | Sr., grad. | 20 cr. in Hist. includ. 107-108 or Pol. Sci. 131-132 |
| Phil. 127 | 5 | Political and Social Ethics..... | Jr., sr., grad. | 10 cr. in any Soc. Sci. except Hist. |
| Phil. 135 | 3 | Philosophy of Plato..... | Jr., sr., grad. | 10 cr. in Phil. or Psychology |
| Soc. 6 | 3 | Modern Social Reform Movements..... | Soph., jr., sr. | Soc. 1 |
| Soc. 55 | 3 | Housing Problems..... | Jr., sr. | Soc. 1 |
| Soc. 101 | 3 | Social Organization..... | Jr., sr., grad. | Three courses, one of which may be in Psych. Phil., Econ. or Pol. Sci. |
| Soc. 104 | 3 | State Care of Dependents, Defectives and Delinquents in Minnesota..... | Jr., sr., grad. | Soc. 51 and 52 or 53 |

All the above courses carry credit in the College of Education. For description see Bulletin of the College of Science, Literature, and the Arts.

PSYCHOLOGY

Associate Professors RICHARD M. ELLIOTT, WILLIAM S. FOSTER, HERBERT WOODROW; Assistant Professors MABEL R. FERNALD, KARL S. LASHLEY, JOHN J. B. MORGAN; Instructor FRANCES LOWELL.

REQUIREMENTS OF THE DEPARTMENT

For B.A. with Honors, besides the general requirements, twenty-four credits in starred courses. Starred courses in Educational Psychology and, to the extent of six hours, in Philosophy, may be counted in partial fulfillment of this requirement.

Students who desire to do research work should consult with the Chairman of the Department.

COURSES

| No. | Credit | Title | Offered to | Prereq. courses |
|------------|--------|---|---|-----------------|
| 1f-2w-3s | 9 | General Psychology..... | Soph., jr., sr. | None |
| *101f-102w | 6 | Experimental Psychology..... | Jr., sr., grad. | 1-2-3 |
| *103s | 3 | Quantitative Psychology..... | Jr., sr., grad. | 1-2-3 |
| *108w-109s | 6 | Advanced General Psychol..... | Jr., sr., grad. | 1-2-3 |
| *114w-115s | 6 | Human Behavior..... | Jr., sr., grad. | 1-2-3 |
| *119f-120w | 6 | Animal Behavior..... | Jr., sr., grad. | 1-2-3 |
| *121s | 3 | Neuro-Psychology..... | Jr., sr., grad. | 1-2-3 |
| *125f-126w | 6 | Differential Psychology..... | Jr., sr., grad. | 1-2-3 |
| *127s | 3 | Social Psychology..... | Jr., sr., grad. | 1-2-3 |
| *131f- | | | | |
| 132w-133s | 9 | Child Mind..... | Jr., sr., grad. | 1-2-3 |
| *200f- | | | | |
| 201w-202s | 6 to 9 | Seminar Selected Topics from History of Psychol..... | Advanced students with permission of instructor | |
| *210f- | | | | |
| 211w-212s | 0 | Research Problems..... | Grad. | |

All of the above courses carry credit in the College of Education. For description see Bulletin of the College of Science, Literature, and the Arts.

ROMANCE LANGUAGES

Professors EVERETT WARD OLMSTED, IRVILLE C. Lecompte, COLBERT SEARLES; Associate Professor RALPH E. HOUSE; Assistant Professors FRANCIS B. BARTON, JULES FRELIN, RUTH S. PHELPS, EDWARD H. SIRICH; Professorial Lecturer PEDRO HENRIQUEZ URENA; Instructors THOMAS W. BUSSON, HERBERT E. CLEFTON, SOLOMON M. DELSON, JOSEPHINE DE BOER, MARGUERITE GUINOTTE, GUSTAV VAN ROOSBROECK, SAMUEL VASCONCELOS; Teaching Fellows ETHEL ELLIOTT, CAMILA HENRIQUEZ URENA, PAUL KRAMER, OLIVE NOTT.

REQUIREMENTS OF THE DEPARTMENT

For B.A. with Honors, general requirements: a reading knowledge of Latin or German with two years work in Spanish or Italian, if French is the major subject, or two years' work in French or Italian, if Spanish is the major subject.

In the junior year, Courses 84-85-86, 87-88-89, 97-98-99, and 100-101-102, if French is the major subject; and Courses 37-38-39, 46-47-48, 49-50-51, and 151-152-153 if Spanish is the major subject. In the senior year, Courses 103-104-105, 131-132-133, 134-135-136, and 112-113-114 or

another two-hour advanced course, if French is the major subject; and Courses 154-155-156, 157-158-159, 163-164-165, and 169-170-171 or another two-hour advanced course if Spanish is the major subject. Substitutions may be made for these courses with the approval of the Department. Alternation of courses required in the junior and senior years is allowable.

For major recommendation for teacher's certificate, in addition to beginning and intermediate courses, thirty-six credits in one Romance Language, exclusive of the Teachers' Course.

For minor recommendation for teacher's certificate, in addition to beginning and intermediate courses, eighteen credits in one Romance Language.

Prerequisites for Teachers' Course, in addition to Course 13-14-15, (or Spanish equivalent, Course 37-38-39) one conversation-composition course and one literary course.

Certificate of Aptitude.—The Department grants a certificate of aptitude to those students who have completed in a satisfactory manner certain prescribed courses destined to fit them for teaching French or Spanish in the secondary schools. For details, consult bulletin at Room 200F.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|---------------|---------|--|-----------------|---|
| 4-5 | 10 | Beginning French | All | None |
| 7-8 | 10 | Intermediate French | All | 4-5 or 2 yrs. of high-school French |
| 10-11 | 10 | Survey of French Lit. | All | 7-8 or 3 yrs. of high-school French |
| (a) 13-14-15 | 9 | Survey of French Lit. | All | 7-8 or 3 yrs. of high-school French |
| (a) 16-17-18 | 3 | Elem. French Conversation . . . | All | 7-8 or 3 yrs. of high-school French |
| (a) 19-20-21 | 3 | Elem. French Composition . . . | All | 7-8 or 3 yrs. of high-school French |
| *81 | 5 | French Phonetics | Jr., sr. | 13-14-15 |
| (a) *84-85-86 | 3 | Adv. French Conversation . . . | Soph.(b)jr.,sr. | 16-17-18 |
| (a) *87-88-89 | 3 | Adv. French Composition . . . | Soph.(b)jr.,sr. | 19-20-21 |
| *90 | 3 | Teachers' Course | Jr., sr. | See above |
| (a) *97-98-99 | 9 | French Lit. Nineteenth Century | Soph.(b)Jr.,sr | 13-14-15 |
| *100-101-102 | 9 | French Lit. Seventeenth Century | Jr., sr., grad. | 13-14-15 |
| *103-104-105 | 9 | French Lit. Eighteenth Century | Jr., sr., grad. | 13-14-15 |
| *106-107-108 | 9 | French Lit. Sixteenth Century . . | Sr., grad. | 100-101-102 or 103-104-105 |
| *109-110-111 | 6 | French Dramatic Literature . . . | Jr., sr., grad. | 100-101-102 or 103-104-105 |
| *112-113-114 | 6 | French Lyric Poetry | Jr., sr., grad. | 97-98-99 |
| *115-116-117 | 6 | French Classicism | Jr., sr., grad. | 100-101-102 |
| *118-119-120 | 6 | French Realistic Novel: Nineteenth Century | Jr., sr., grad. | 97-98-99 or with permission of Instructor |
| *121-122-123 | 6‡ | Lectures in French | Jr., sr., grad. | 13-14-15 and 84-85-86 |
| *131-132-133 | 6‡ | French Oral Diction | Jr., sr., grad. | 84-85-86 |
| *134-135-136 | 3‡ | French Syntax and Composition | Jr., sr., grad. | 87-88-89 |

| No. | Credits | Title | Offered to | Prereq. courses |
|-------------------|---------|--|-----------------|--|
| <i>Spanish</i> | | | | |
| 31-32 | 10 | Beginning Spanish..... | All | None |
| 33-34 | 10 | Intermediate Spanish..... | All | 31-32 or 2 yrs. high-school Span. |
| 35-36 | 16 | Survey of Spanish..... | All | 34-35 or 3 yrs. high-school Span. |
| (a)37-38-39 | 9‡ | Survey of Spanish Lit..... | All | 34-35 or 3 yrs. high-school Span. |
| (a)40-41-42 | 3‡ | Elem. Spanish Conversation... | All | 34-35 or 3 yrs. high-school Span. |
| (a)43-44-45 | 3‡ | Elem. Spanish Composition... | All | 34-35 or 3 yrs. high-school Span. |
| *46-47-48 | 3‡ | Advanced Spanish Conversation | Jr., sr. | 40-41-42 |
| *49-50-51 | 3‡ | Advanced Spanish Composition | Jr., sr. | 43-44-45 |
| *52 | 3‡ | Teachers' Course..... | Jr., sr. | See above |
| *151-152-153 | 6‡ | Cervantes..... | Jr., sr., grad. | 37-38-39 |
| *154-155-156 | 6‡ | Spanish Dramatic Lit..... | Jr., sr., grad. | 37-38-39 |
| *157-158-159 | 6‡ | Spanish Novel..... | Jr., sr., grad. | 37-38-39 |
| *160-161-162 | 6‡ | Critical study of Selected Classics..... | Jr., sr., grad. | 37-38-39 |
| *163-164-165 | 6‡ | Lectures in Spanish..... | Jr., sr., grad. | 40-41-42 and 46-47-48 or 37-38-39 |
| *169-170-171 | 3‡ | Spanish Syntax and Composition..... | Jr., sr., grad. | 49-50-51 or by permission of Instructor. |
| <i>Portuguese</i> | | | | |
| *53-54-55 | 9‡ | Beginning Portuguese..... | Jr., sr. | None |
| <i>Italian</i> | | | | |
| 61-62 | 10‡ | Beginning Italian..... | All | None |
| *64-65-66 | 9‡ | Survey of Italian Lit..... | Jr., sr. | 61-62 |
| *181-182-183 | 6‡ | Dante, Petrarch, Boccaccio.... | Jr., sr., grad. | 61-62; 64-65-66 or 13-14-15 or English 1-2-3 |
| *184-185-186 | 3‡ | Dante (in English)..... | Jr., sr., grad. | Hist. 1-2-3 and Eng. 1-2-3 or Fr. 13-14-15. (Req. of students taking 181-182-183.) |

‡All quarters must be completed before credit is given for any one quarter.

(a) Courses 13-14-15, 16-17-18 and 19-20-21 may be combined to form a five hour unit course for Junior College students. The unit course thus formed may be dropped at the end of the second quarter, but the third quarter's work must be completed before more advanced courses in French may be elected. Courses 37-38-39, 40-41-42 and 43-44-45 may be combined in like manner to form a unit course in Spanish. Courses 84-85-86, 87-88-89, and 97-98-99 may also be combined under the same conditions.

(b) Courses 84-85-86, 87-88-89 and 97-98-99, altho Senior College courses, are open to sophomores who can satisfy the prerequisites.

For sequences of Junior College courses, see the departmental bulletin at Room 200 F.

Courses in French or Spanish conversation may be taken only when accompanied by the corresponding courses in composition. No credit will be given for work done in a course in conversation unless the course in composition is passed also. Courses in composition may be taken separately.

Students in the Engineering and Medical Schools may receive credit for one quarter of Course 7-8 when attached to Course 4-5.

The Teachers' Course in French (90) will be offered the first and third quarters. The Teachers' Course in Spanish (52) will be offered the second quarter.

No student will be allowed to elect courses more advanced than Intermediate French or Spanish, who has not received a grade of C or better in the intermediate courses.

For description of courses see the Bulletin of the College of Science, Literature, and the Arts.

SCANDINAVIAN

Professors GISLE BOTHNE, ANDREW A. STOMBERG.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses |
|---------------------|---------|---|-----------------|--|
| 1f-2w | 10 | Beginning Norwegian..... | All | None |
| 3s | 5 | Intermediate Norwegian..... | All | 1f-2w |
| 4f-5w | 10 | Advanced Norwegian..... | Soph., jr, sr. | 1f-2w-3s |
| 7f-8w | 10 | Beginning Swedish..... | All | None |
| 9s | 5 | Intermediate Swedish..... | All | 7f-8w |
| 10f-11w | 10 | Advanced Swedish..... | Soph., jr., sr. | 7f-8w-9s |
| 12s | 5 | Ancient and Medieval Scandi- navian History..... | Soph., jr., sr. | 10f-11w or 4f-5w |
| *101f-102w- 103s | 9 | Modern Norwegian Literature.. | Jr., sr., grad. | 4f-5w |
| *104f-105w- 106s | 9 | Modern Scandinavian Hist.... | Jr., sr., grad. | 10f-11w-12s or 4i- 5w or Hist. 102w- 103s or 4-5w-6s |
| *107f-108w- 109s | 9 | Modern Swedish Lit..... | Jr., sr., grad. | 10f-11w-12s |
| *110w | 3 | Ibsen..... | Sr., grad. | 101f-102w-103s |
| *111f-112w- 113s | 6 | Old Norse (Icelandic)..... | Sr., grad. | See statement |
| *114f | 3 | Strindberg..... | Sr., grad. | 107f-108w-109s |
| *115w | 3 | Teachers' Course in Swedish... | Sr., grad. | 10f-11w-12s or 4f-5w |
| *116s | 3 | Teachers' Course in Norweg... | Sr., grad. | 4f-5w or 10f-11w-12s |
| *117w-118s | 6 | Earlier Norwegian Lit..... | Sr., grad. | 101f-102w-103s |

For description of the above courses see Bulletin of the College of Science, Literature, and the Arts.

SOCIOLOGY AND SOCIAL WORK

Professors ARTHUR J. TODD, ALBERT ERNEST JENKS; Associate Professors LUTHER L. BERNARD, MANUEL C. ELMER; Assistant Professors ROSS L. FINNEY, GUSTAVE A. LUNDQUIST; Lecturers FRANK J. BRUNO, OTTO W. DAVIS, ARTHUR H. TAYLOR, EDWARD C. WAITE; Superintendents of State Board of Control Institutions; Teaching Fellow ALMENA DAWLEY; Supervisor of Field Work CAROLINE BEDFORD.

COURSES

| No. | Credits | Title | Offered to | Prereq. courses. |
|-----|---------|--|-----------------------------------|--|
| 1 | 5 | Introduction to Sociology and Anthropology..... | Soph., jr., sr. | None |
| 6 | 3 | Modern Social Reform Move- ments..... | Soph., jr., sr. | 1 |
| 14 | 3 | Rural Sociology..... | Jr., sr. | 1 for Arts students None for seniors in professional schools. |
| 26 | 3 | Social Problems for Engineers.. | Soph., jr., sr. Engineers only | None |
| *51 | 3 | Background of Dependency and Defectiveness..... | Jr., sr. | 1 |
| *52 | 3 | Treatment of Dependents and Defectives..... | Jr., sr. | 51 |

| No. | Credits | Title | Offered to | Prereq. courses |
|------------------|---------|--|-----------------|--|
| *53 | 3 | Treatment of Delinquents..... | Jr., sr., grad. | 1, and Psychology 1-2-3 recommended |
| *54 | 3 | Child Welfare..... | Jr., sr. | 51 or 52 |
| *55 | 3 | Housing Problems..... | Jr., sr. | 1 |
| *99 | 3 | Supervised Field Practice Work | Jr., sr., grad. | Consent of Director (see statement) |
| *101 | 3 | Social Organization..... | Jr., sr., grad. | 3 courses one of which may be in psych., philos., econ., or pol. sci. |
| *102 | 3 | Social Control..... | Jr., sr., grad. | Same as for 101 |
| *104 | 3 | State Care of Dep., Def., and Del. in Minnesota..... | Jr., sr., grad. | 51, and 52 or 53 |
| *108 | 3 | Social Psychology..... | Jr., sr., grad. | 1 and Psych. 1-2-3 |
| *110 | 2 | Community Organization and Social Work in Small Towns | Jr., sr., grad. | Two courses |
| *114 | 3 | Rural Social Institutions..... | Jr., sr., grad. | 14 |
| *119 | 3 | The Family..... | Jr., sr., grad. | Three courses one of which may be in home econ., econ., pol. sci., Anthropol. or law |
| *120 | 3 | Social Progress..... | Jr., sr., grad. | Three courses, one of which may be in econ., pol. sci., educ., or philos. |
| *121 | 3 | Methods of Social Investigation | Jr., sr., grad. | Three courses |
| *128 | 2 | Charitable Admin. Finance and Publicity..... | Jr., sr., grad. | Three courses |
| *130 | 2 | Technique of Family Treatment | Jr., sr., grad. | 51, 52 and one other |
| *132 | 2 | Juvenile Courts and Probation. | Jr., sr., grad. | 51, 52, 53 |
| *133-134- 135 | 3 | Hospital Social Service..... | Jr., sr., grad. | Consent of director |
| *137-138- 139 | 6 | Mental Class Work..... | Jr., sr., grad. | Consent of director |
| *140 | 3 | History of Social Theory..... | Jr., sr., grad. | Same as for 101 |
| *150 | 2 | Seminar..... | Jr., sr., grad. | 1, 6 and 1 other or English |
| *151 | 2 | Seminar..... | Jr., sr., grad. | 3 courses one of which may be Econ. 161 or 167 |
| *152 | 2 | Seminar..... | Jr., sr., grad. | 1, 6 and 1 other |
| *180 | 2 | Seminar in Educational Soci- ology..... | Jr., sr., grad. | 1, 6 and 120 or educ. |
| *204-205- 206 | 6 | Seminar in Social Theory..... | Grad. | Consent of Instruc. |
| *221-222- 223 | 0 | Graduate Field Training..... | Grad. | Consent of Director |
| *253 | | Criminology..... | Grad. | |

All of the above courses carry credit in the College of Education.

For description see Bulletin of College of Science, Literature, and the Arts.

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